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PROGRESSIVE ARCHITECTURE

1953

design techniques

1

january 1953

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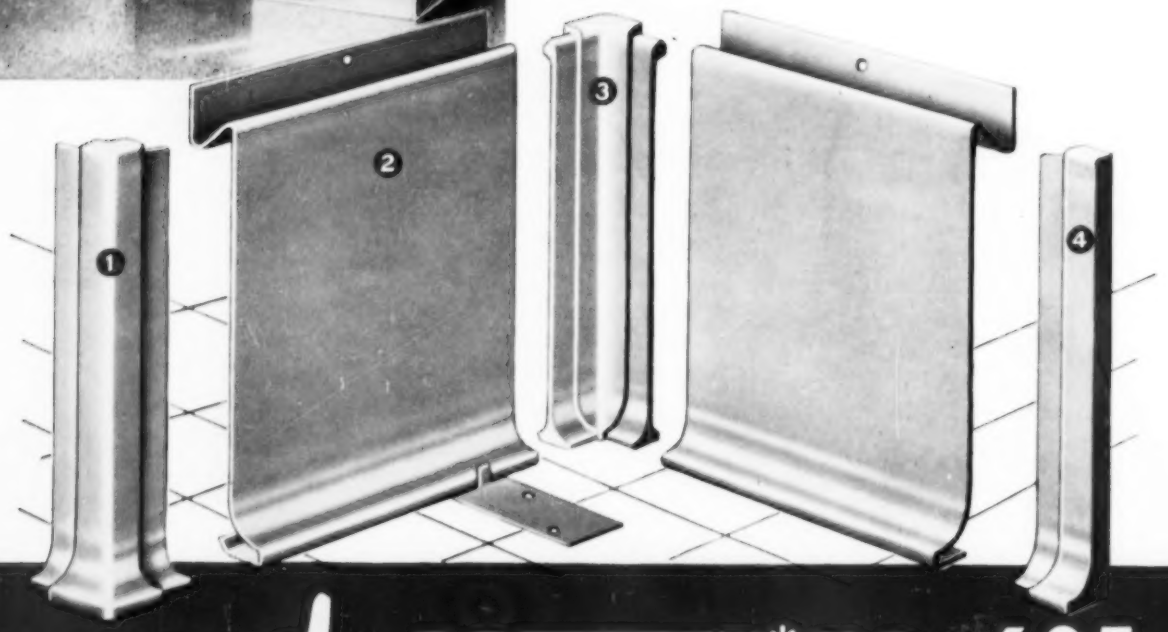

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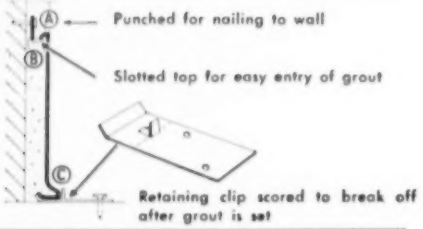

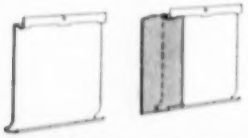

No punching, no exposed screws

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* Tiny Baker, General Superintendent for Diller and Gunther Subdivision Developers of Los Angeles, California, warming up at California Building Contractors' Association Convention at San Diego, November 14, 1952

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KWIKSET

p/a newsletter

January 1953

Business prospects look good for 1953, in architecture and allied fields. See P/A's detailed report, further on in this issue. Other surveys indicate the same thing: architects, engineers, employees in their offices, and construction industry in general should have a good year.

County and municipal housing and redevelopment agencies have increased 25% in number in last two years. According to figures published in New Housing and Redevelopment Directory, there are now 1184 such agencies, all potential sources of commissions to designers concerned with this broad type of practice.

Columbia students believe in doing something about integration of the arts. Student body of that University's School of Architecture has arranged a series of exhibitions and lectures on work of a series of painters and craftsmen, with critiques by several art critics.

More than a quarter of last year's total hospital-construction dollars went to improvement of existing facilities, without adding any beds. Public Health Service report indicates further that only one-fifth of $773 millions spent on hospitals in 1952 went to totally new construction. Report further indicates that of total 708,000 beds needed in U.S., only 474,000 existed in 1952 and another 28,000 are now being added. In other words, 30% of need remains to be met.

New products don't often make this page, but we have just seen one which deserves mention, even though it is too late to include photos. It consists of two modular wall units -- boxes 4' x 2' - 4" -- one of which is glazed with Thermopane, the other a louvred ventilating unit, insulated and screened. They interlock, are load-bearing, and can be used in any combination to build walls. L.O.F. will introduce these units at the Chicago Home Builders' show this month and P/A will show it in detail in a subsequent issue.

Plywood industry, according to report in Wall Street Journal, is in that peculiar squeeze which often comes to rapidly expanding industrial groups. Great plant expansion, following soaring demands, has now resulted in production capacity above sales (which are still excellent) and has forced price drop. This, together with wage increases, has resulted in profit squeeze. Look for strong promotion campaigns to induce further use of this versatile material.

Defense housing still lags. Progress report late in November indicated that of 96,834 units "programmed" by HHFA, approximately half had been put under construction and only a fourth had been completed.

Latest news on Paris UNESCO project: building is now planned on original site, once declared unsatisfactory by architectural board. However, Breuer, Zehrfuss and Nervi, with Saarinen as consultant, will continue as design team and revise parti.

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newsletter

Air conditioning will be available this year in prefab houses costing under $12,000. Gunnison Homes has worked out an arrangement with Carrier, whereby that corporation will provide units as optional equipment in models marketed in 1953.

Hermann Field, U.S. architect, is probably in prison somewhere behind the Iron Curtain. Recent Czech loyalty trials resulted in this disclosure by Prague newspaper and radio, after several of those on trial claimed to have conspired with Hermann and brother Noel as "imperialist agents." This is first statement since Cleveland A.I.A. member disappeared between Warsaw and Prague two years ago.

Architects want adult education -- if it is well presented. This is conclusion of U. of Illinois architectural and engineering faculty after conducting three-day course aimed at practicing architects on "Planning for Heating and Air Conditioning in Small Buildings." "Students" attended from six mid-west states, were attentive, and enthusiastic.

Exam for Illustrator (City Planning) will be held by N.Y.C. Municipal Civil Service Commission in March. Salary $3770. Applications are available January 7-22, must be obtained in person.

Reinforced plastics are playing increasing role in building, and are attracting interest of many designers. Recognizing this, the Society of the Plastic Industry is holding a conference on the subject and will show an exhibit of available materials and applications in Washington (Shoreham Hotel) February 18 to 20.

Plastics are also of interest in England. Early announcements of 1953 British Industries Fair indicate that there will be a special trade exhibit of this industry, in addition to a large separate showing of construction and engineering materials. Fair -- which was attended last year by 1150 U.S. buyers -- will be held in London and Birmingham from April 27 to May 8.

President Eisenhower's attitude toward architecture remains to be clarified. Certainly, he is not a professional, as was President T. Jefferson; or an amateur, as was President F. Roosevelt. His critical approach to the design of the U.N. group was noninformative. New York Times reported him as saying, "Brother, this is something." A further indication may be implied in his quoted remark, after he had seen the Leger murals: "To be modern, you don't have to be nuts." Modernists may be in for tough time in government commissions since Representative Dondero (R., Mich.) who will head House committee controling public works, has stated his belief that modernism in art is un-American.

Architectural exhibit of school buildings will be held in Atlantic City, February 14-19. American Association of School Administrators announces that submissions may be made of any building completed or under contract in U.S. or possessions. Entries are due January 11; data and blanks from A.A.S.A., 1201 Sixteenth St., N.W., Washington 6, D.C.

FHA will now insure mortgages in Guam (see P/A's story on this island's development, page 53) with service office in Agana. This is second territory -- Alaska the other -- which now has benefits of National Housing Act.

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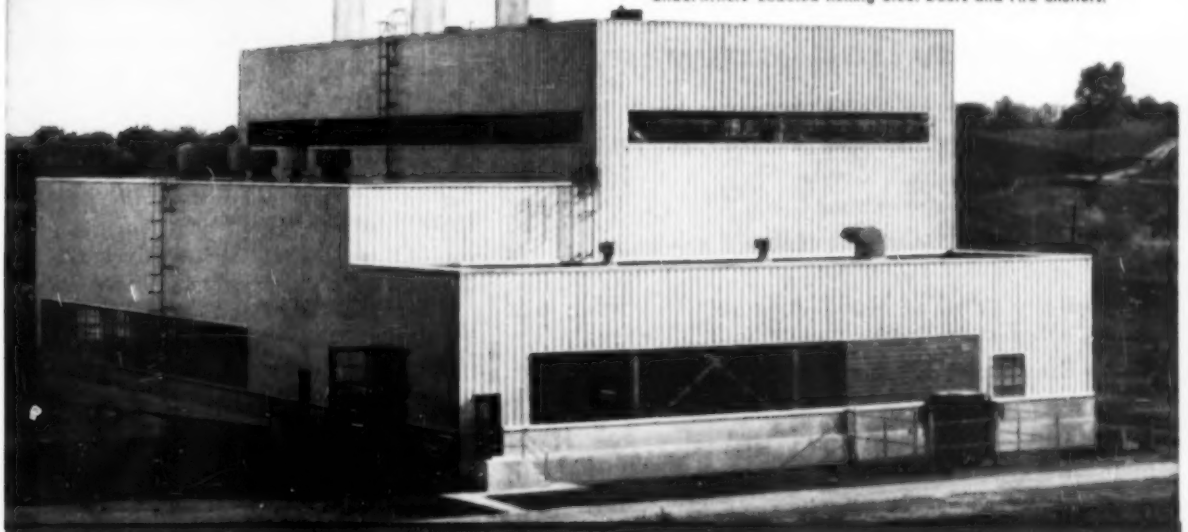

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critical discussion applauded by most readers

Dear Editor: I found the Round-Robin Critique on the elementary schools published in September 1952 P/A, of great interest. In my opinion it is the best type of architectural criticism that seems to be practical these days. The only improvement I could suggest I believe we discussed when you were here about a year ago on our "Architecture—1951" Jury. That is the idea of a competent critic visiting a building to make a first-hand study of the functioning of a building, the suitability of materials, etc.; discussion of the problems involved in planning and construction, limitations of site conditions, building codes, costs, etc.; and the reactions of the owner or tenants of the building.

All in all, I think the Round-Robin Critiques are extremely interesting and I hope to see you continue them.

A. B. Swank, Jr.
Dallas, Tex.

Dear Editor: With reference to your Round-Robin Critique on elementary schools in September 1952 P/A, we heartily endorse the idea.

We read the criticism and found that the questions and answers added greatly to our understanding of the buildings. We are in favor of not only continuing but elaborating upon this more critical editorial policy. R. G. Cerny
Minneapolis, Minn.

Dear Editor: Your Round-Robin Critique is to be highly recommended. Impersonal criticism is always appreciated and gives stimulus to our search for improvement. This series should become very popular with both small and large firms.

Alfred T. Kurek
Chicago, Ill.

Dear Editor: I am definitely in favor of the Round-Robin Critique.

As an instrument of education, the architectural magazine is more valuable with the addition of diversified analysis and criticism. Joseph Marlow
Denver, Colo.

P.S. Also more interesting to read.

Dear Editor: This is my evaluation of the Round-Robin Critique presented in September 1952 P/A.

For one thing I believe the critique, like any discussion, brings out side comments and problems related to the specific experience of individuals with local problems or clients, which can be very enlightening to the interested reader, matching perhaps or providing an answer for or comment on some similar problem of his own.

I presume that the critic architects must work from photographs or drawings almost entirely, unless they happen to live near or have seen in passing the buildings which they criticize. I believe this is unfortunate although perhaps unavoidable. I feel that there is no substitute for visiting the actual building as so often the whole "feel" of a building is completely missed in photographs—color, scale, finish, surroundings, etc. If some method could be devised to assign critics who might get a look at the buildings in question, I believe the meaning of the criticism might be deepened.

In general I like the idea of tossing around some of the more pertinent comments on what are obviously pretty good buildings to begin with. I hope the critiques will continue.

Charles Gordon Lee
Denver, Colo.

Dear Editor: I commend your Round-Robin Critique presentation. Self-criticism is most stimulating and informative. I think your handling of the material was very readable. Carry on.

John T. Jacobsen
Seattle, Wash.

Dear Editor: I read your Round-Robin Critique through completely and thoroughly enjoyed it. I thought that the presentation was excellent and will, as a result, look forward to other such presentations in Progressive Architecture. The interchange criticism is particularly interesting since it is the way that we work within our organization.

John L. Turner
Jackson, Miss.

Dear Editor: I am not much interested in a Round-Robin Critique on any kind of building. I find that I like to interpret designs as shown in the magazine on the basis of our own office experience and have a feeling that wading through a lot of comment and cross comment would take away from the purely essential enjoyment of a particular building. I feel that too many architects, when they are called on to comment on a plan, feel that they have to say something critical about it as well as something complimentary; then too, one never knows what problems the architect had before him when doing the particular job.

I think the finished building should stand on its own merits, with a photographic coverage of the subject, with enough captions to account as a readers specification.

I might add that I do read the Round-Robin Critiques and everything else that I see in Progressive Architecture, not only in the editorial section but in the advertising matter as well, as it forms the best way I know of in keeping up to date.

Jedd S. Reisner
New York, N. Y.

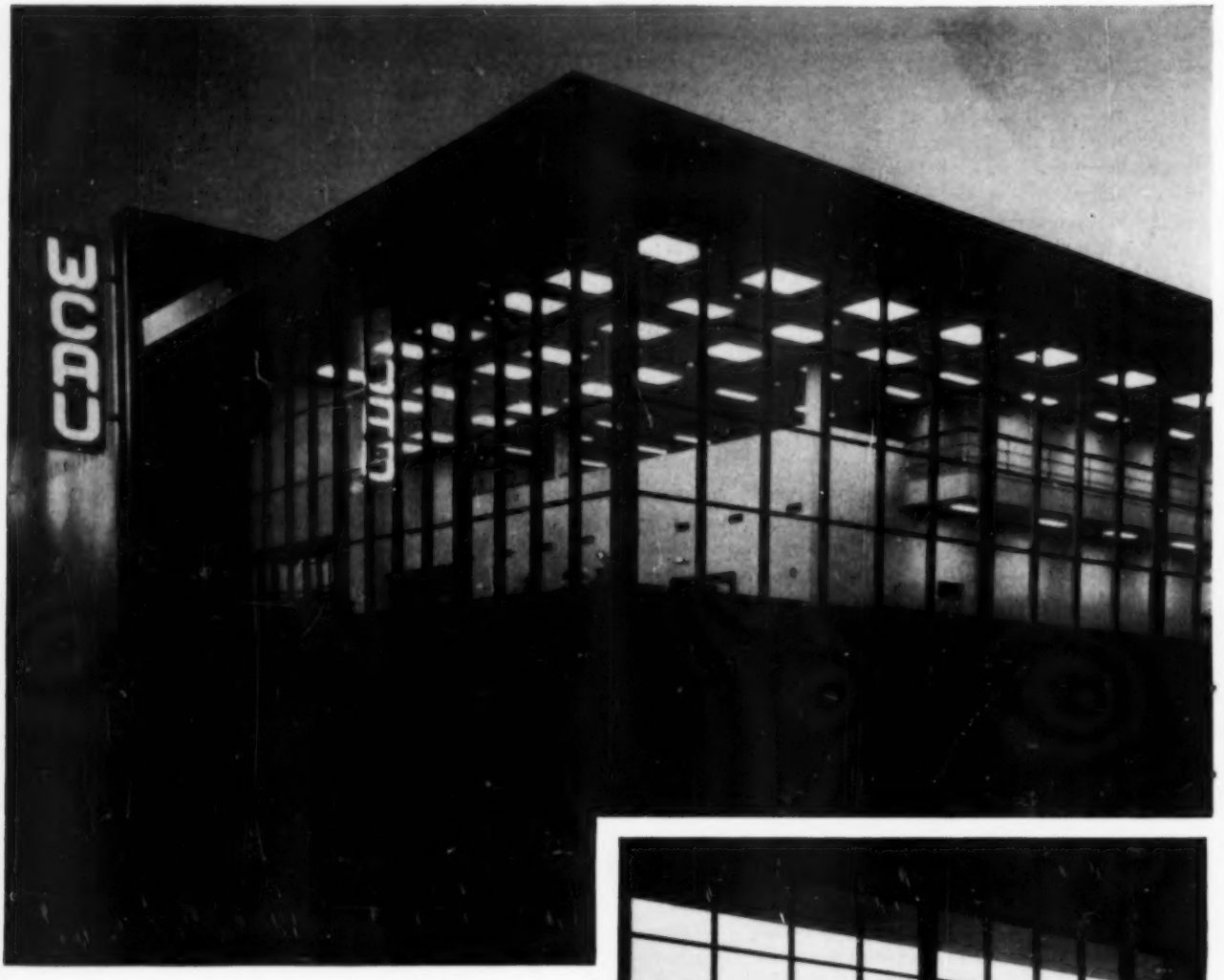
Dear Editor: As a partner in a firm which devotes at least half its time to the design of public and parochial school buildings I am heartily in accord with your Round-Robin Critique presentation and urge you to continue it. Not only is it stimulating to those of us who read this information but it should be helpful both to those giving the criticism and those receiving it. Let us have more of this.

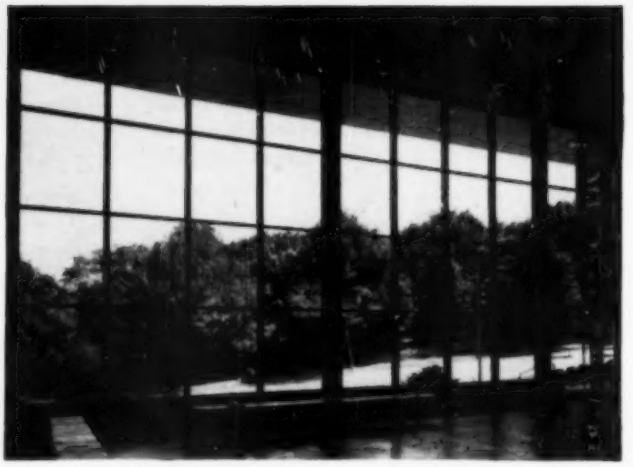
Allen J. Strang
Madison, Wis.

Dear Editor: We join in the desire for more criticism and have very much enjoyed the various presentations in Progressive Architecture covered by the critique method. My personal reaction to these is that it makes for considerably better reading, but as for real criticism, they are handled on too polite and

(Continued on page 10)

Interesting uses of SOLEX Heat- *in today's*

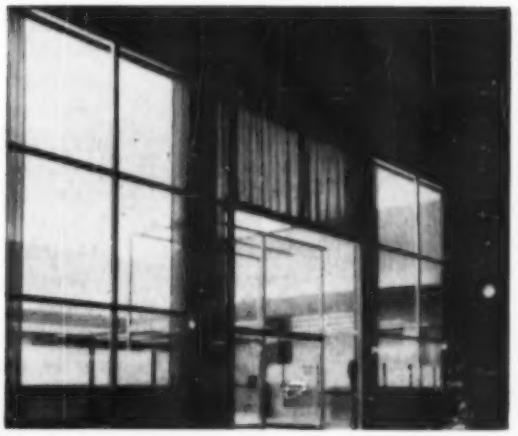




AT THE new and exciting radio and television studios of WCAU in Bala Cynwyd, Pa., a short distance from Philadelphia, $\frac{1}{4}$" Solex Heat-Absorbing Glass was utilized for the exterior glazing. The inset shows an interior view of the front entrance of the building, indicating the use of large lights of Solex, as well as Herculite Tempered Plate Glass Doors $\frac{1}{4}$", $\frac{1}{2}$", and $\frac{5}{8}$" Pittsburgh Polished Plate Glass sound partitions and quadruple Solex, together with $\frac{5}{8}$" Polished Plate Glass in four control booths, also are used in this modern communication center. Architects: The Austin Co., Roselle, N. J., Robert Montgomery Brown, Philadelphia, Pa.

Absorbing Glass

structures



THIS ENTRANCE of the new Continental National Bank building at Ft. Worth, Texas, is an interesting example of the use of Solex in today's commercial structures to reduce sun glare and keep interiors more comfortable. Among the other Pittsburgh products installed here are fourteen Herculite Doors. Inside, heavy Plate Glass is used for the teller screens, and Pittsburgh Mirrors are found in the rest rooms. Architect: Preston M. Geren, Ft. Worth, Texas.

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(Continued from page 7)

friendly a basis. In other words, the comments seem to me more in the form of natural questions and answers which would come up between two friendly colleagues while discussing a project at a cocktail party.

There is, of course, nothing wrong with this method, but it seems to me that, in many respects, we are over-civilized, and the cause of improvement in the profession and its resultant product would be fostered by a little more lusty comment. We all know from experience that our individual thoughts on a colleague's project are quite often terrifically strong, but when we discuss it with him we tend to soften and gloss over the real errors and comment mainly on the good points, plus a few polite inquiries as to why he did it thus-and-so.

My suggestion to you is that you might consider anonymous criticism. This, of course, has its drawbacks, but the anonymity would not be complete, as the critics would be known to you and your staff. I believe that both the comments and the rebuttals would be much stronger, more interesting, and more vital if this were done. MARCELLUS WRIGHT, JR.
Richmond, Va.

Dear Editor: It seems to me that the Round-Robin Critique is a good idea. This kind of presentation brings out points often not too obvious in the usual glowing description found in architectural magazines.

It is sometimes good to have to say why you did it the way you did.

It is also interesting to have a glimpse of the thinking of the critic as well as the designer. THORNTON M. ABELL
Santa Monica, Calif.

●

letter to the schoolmaster

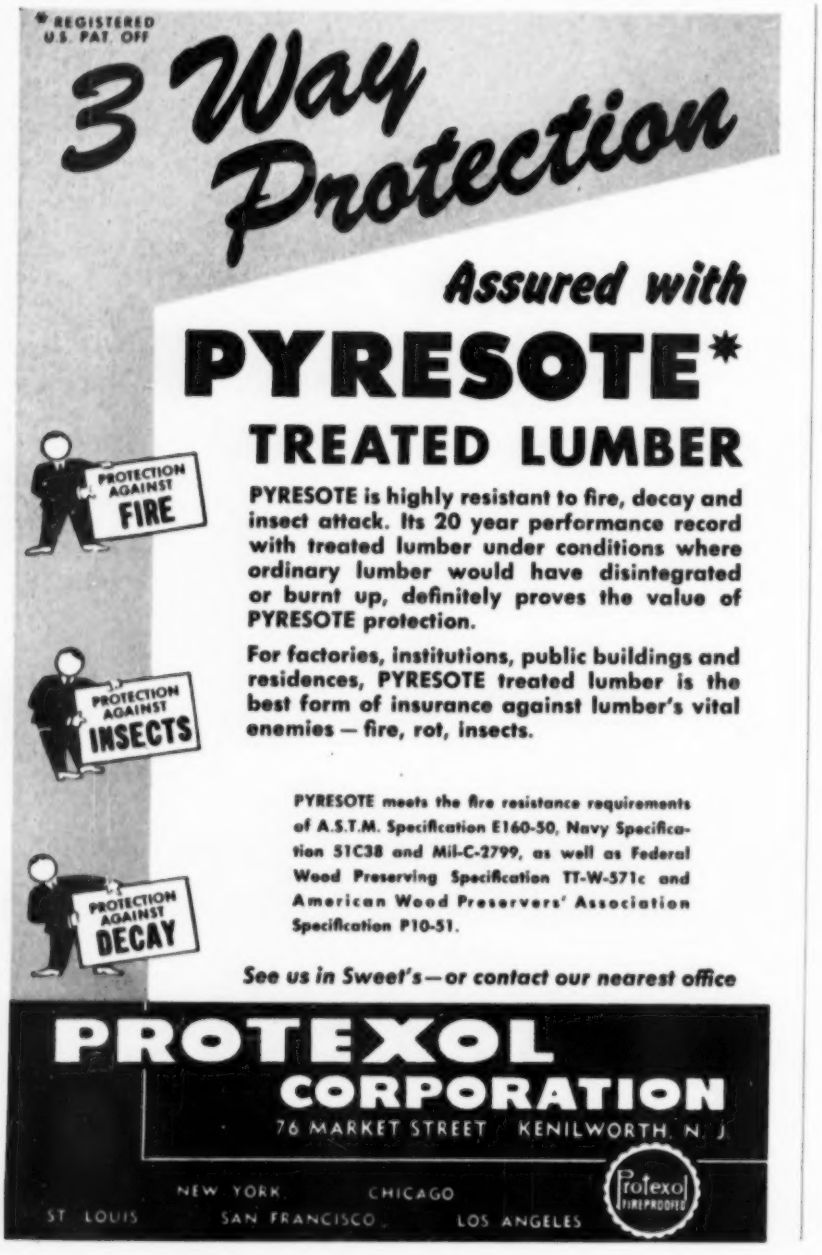
Dear Mr. Feiss: For a long time I have been an interested reader of your column and its thought contents. I have been pretty fascinated by your crusade for improvement in the general teaching structures of the architectural schools.

For two or three years now, I have also been writing a monthly column for the architects in a construction magazine and have been harping upon the subject of comprehensives which have been *foisted* upon the architectural students by the requirement of an additional year's residence in college. This interest becomes more profound since I also have a son who is being taught these so-called comprehensives. To me, it looks like one of the high school courses that we used to know, like civics, biology, and chemistry, has been hoisted upon a college plane in an effort to broaden the kids. These subjects, where not taught under architectural guidance, can be an astounding waste of time. It would seem so much better if the students were being taught some manner of logic, ethics, architectural English, and comprehension, in lieu thereof. Perhaps it is wishing too much, but no one is actively outspoken against these shackles on the new student.

If all of this follows a pattern in which you are interested, I would be glad to develop it a little further with you.

CHARLES L. MARSHALL
Topeka, Kansas

(Continued on page 12)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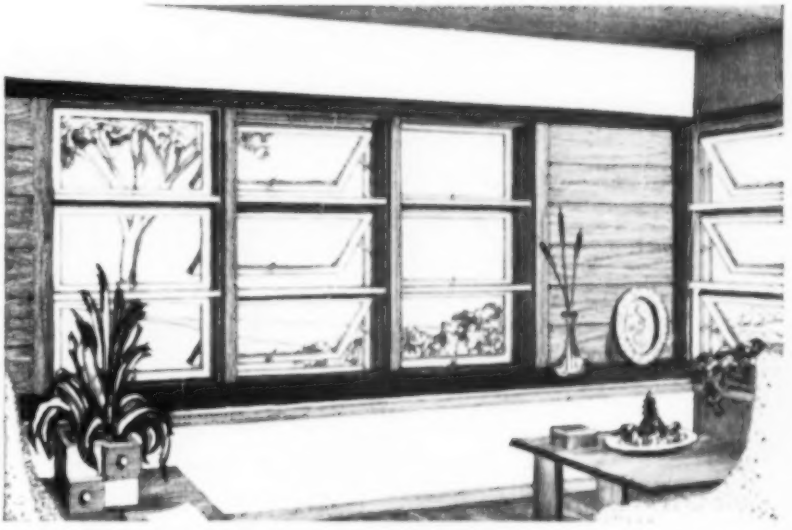

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p/a views

(Continued from page 10)

Dear Mr. Marshall: *I agree with you on the stupidity and banality of most comprehensive courses "foisted" on college freshmen, but do not limit my agreement only to those so-called* basics *for architectural students. First-year courses in almost any American university and all but the best of the arts and sciences colleges are high school makeup courses in which the universities attempt, usually with low-paid instructors, to establish a least common educational denominator for all freshmen. If it were the highest common denominator, it would be some improvement, but I find little evidence of that objective.*

Part of the problem the colleges face is the low-grade education which most kids get in the average American public high school. At Denver, I was forced to take in youngsters from every village and town in the Mountain States and Prairie regions. Most boys could just read and write. We found the simplest college algebra too hard for them, as they had not yet mastered arithmetic. They had been taught so little science or biology that all they had mastered—usually by instinct or hearsay, rather than education—was a thorough knowledge of the sexual processes. They had not learned to work and they had not learned how to communicate with the outside world with other than a vocabulary of about 300 words—and most of those four-letter.

It was necessary for us at Denver to establish speech clinics. I had entering students take aptitude and manual dexterity tests. We gave them grade school courses in manners and sometimes kindergarten courses in reading. I could write a book on what we found university fodder was supposed to be. Inside, they were all swell kids, bottled up, uneducated, but ripe for experience and eager to be uncorked.

What your boy faces, apparently, is the standard situation where all youngsters are stirred around in an insipid brew from which no stimulation can ever come. Whether or not he needs more basics or is capable of moving into "logic, ethics, architectural English, and comprehension," you are better able to judge. Of course, I have always felt that logic and ethics could be taught and should be taught no later than the sixth grade in elementary school.

Be that as it may, the fundamental error made by all universities and colleges of my acquaintance is to place so little value on the first years of their training programs. The highest paid *and* most capable *men should be teaching the freshmen in any institution of higher learning. Further, the student per professor ratio should be so low as to enable the closest possible guidance and career counseling to exist. We have failed to plan and budget for a system of this sort; and the average college freshman remains competent to cheer at football games and join a fraternity—hardly more.*

I am equally bitter about the situation and only wish I knew what to do about it. Architectural freshmen suffer, but so do all the rest. I am glad you raised the issue. We will just have to keep fighting for an improvement. Thanks for your very good letter and I hope our readers also have something to say about it.

CARL FEISS

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Kirlin
. . . built-in METHOD of LIGHTING

WITH WIDE ANGLE LENS FOR WIDE DISTRIBUTION OF LIGHT RAYS

Gymnasium of South Jr. High School, Kalamazoo, Mich. (North Jr. is duplicate). Louis Kingscott, Architect; A. A. Holcomb, Engineer. After one year, measured intensity was 54 to 55 foot candles at floor as predicted by Kirlin Catalog 55, pp 16. Used were 108 Kirlin twin No. 1212-2, 300 W (6.1 watts/sq. ft.) at approx. 10′ centers on 25′ ceiling.

Delivers Greater Lighting Efficiency

due to Alzak glass-surfaced aluminum reflectors and KIRLIN prism lens.

It was proven on this job, and on many others, that the efficiency tables in the KIRLIN Catalog are correct—although higher than the IES Handbook tables for conventional recessed lighting.

Installation costs are less with Kirlin fixtures. Regular building wire, such as rubber covered, is run direct to exclusive heat-insulated junction box. No asbestos wire is needed.

- **Made in all sizes—square or rectangular—and in Fluorescent.**
- **Hinged rust-resisting doors in die cast frames suitable for outdoor locations.**
- **Wide-angle or concentrating lens.**
- **UL and IBEW Labels.**
- **In stock at leading wholesalers.**

Your client secures many advantages when you specify the KIRLIN Method. The wide distribution of light rays illuminates vertical surfaces, as for example in this gym it lights the sides of the basket balls and soft balls. There is more useful light from the lamps. (Light concentrated downward like rain lights only the TOP of a ball—in an auditorium or theater it emphasizes the bald heads.)

With the KIRLIN Method, nothing dangles from the ceiling to collect dust, an important factor in the home or office as well as in a gym. When equipped with shock-resisting lens nothing breaks when the ball hits the ceiling. Fixtures can be re-lamped from above the ceiling. Lighting maintenance costs are much less.

Specify the KIRLIN Method of Lighting and earn the gratitude of your clients. Catalogs and AIA data file on request.

KIRLIN "No-guard" EXITS use shock-resisting glass. Hinged, flush with wall.

For home use too—the Kirlin Lighting Method beautifies all rooms in the house. ▶

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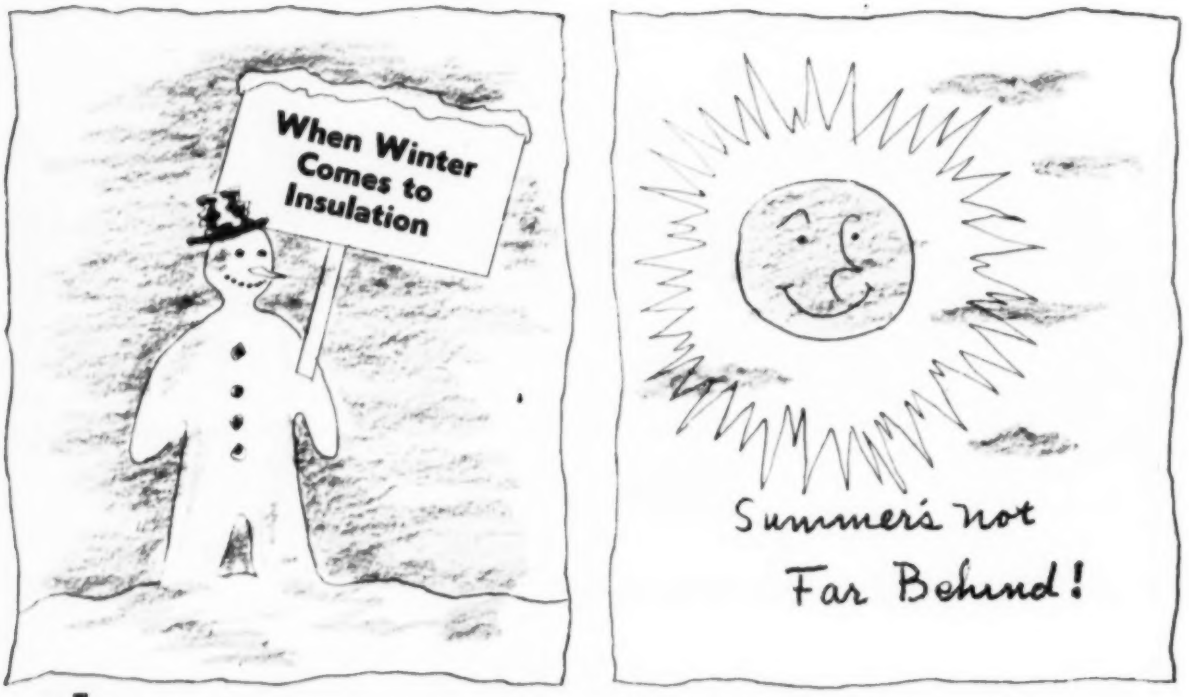

Insulation for winter warmth and fuel conservation can be more efficient and also provide coolness and comfort in summer. It can reduce original and operating costs of air cooling equipment as well as of heating plants. A building really shielded from the summer sun's radiation is considerably cooler, not only by day but also at night. A building properly shielded from winter heat loss heats up faster, is more comfortable, requires less fuel, and stays warm longer at night when furnaces are turned down.

Choosing insulation can be a thoughtless, perfunctory product of inertia or a scientific selection based on physical needs, financial considerations and performance. Readily available studies and tables show the thermal factors, permanency, and permeability to water vapor of different materials, and to what extent they foster or prevent destructive condensation.

Gold, silver and aluminum sheets have the best ratings in all these categories. But aluminum may be had at very low cost in the form of pre-fabricated multiple accordion sheets which automatically create effective air surfaces and spaces when installed.

Multiple accordion aluminum has high rejection and low projection of heat rays; low conduction because of preponderant air spaces and slight mass. It blocks convection because of compartmented layers. To vapor, it has zero permeability. It is practically non-condensation-forming. Slight mass also prevents unwanted heat storage.

Commercially, multiple accordion aluminum, pre-fabricated to compartmentize as it is installed, is available as Infra Insulation, Types 6, 4 and 4 Jr.

Read the detailed development of the points made above, consult the charts of thermal factors and of relative reflectivities and emissivities; benefit from pertinent, valuable information in Schwartz's "Simplified Physics of Vapor and Thermal Insulation." Use the coupon to get a FREE COPY.

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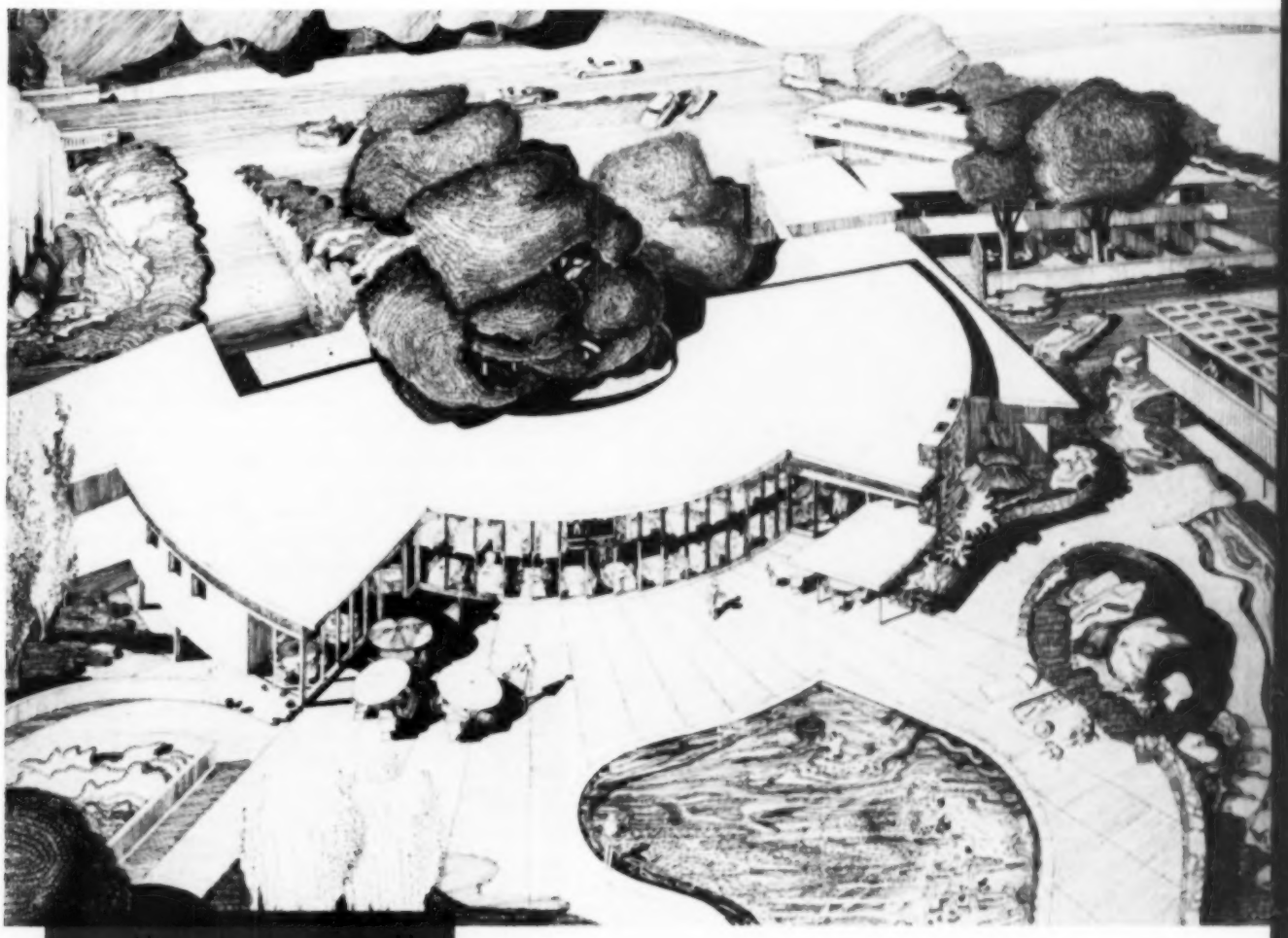
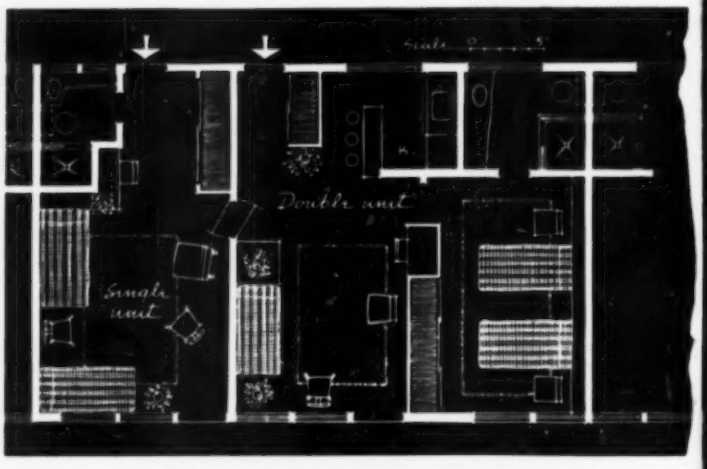


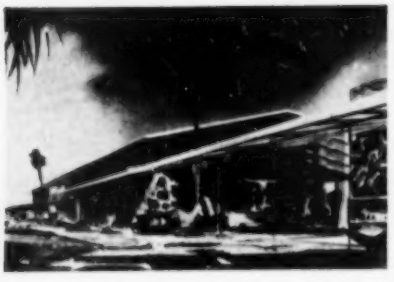
roadside architectonics, California

A function of architectural design frequently underplayed, even ignored by some architects who apparently think it "not quite nice," is the commercial publicity value of a striking façade or building group. Kenneth C. Rickey, Architect, of Rickey & Brooks, Sacramento, California, frankly accepted noticeability as a major element of this design for a hotel and restaurant intended to attract transient guests seeking entertainment and relaxation as well as overnight accommodations. The main building of the $1 million project features the restaurant and broad terrace around a swimming pool. The wings at the rear of the tree-shaded site will contain 100 suites of rooms, with parking areas near each group. *Rendering: Fred E. Brooks*

roadside architectonics, Nevada

Near the new racetrack at Las Vegas, Nevada, and prominently located on the main highway will be this eye-catching rambling group of buildings designed by Edward H. Fickett, Architect, of Los Angeles, California. Behind the main structure—containing a theater-restaurant, a gaming casino, and a row of luxury shops—will be a large swimming pool court surrounded by the wings containing 200 guest rooms. The architecture and amenities ($1.5 million) are intended to attract the high-pressure vacationer and provide the 24-hour entertainment expected in Nevada resorts. *Color renderings: "Val"*





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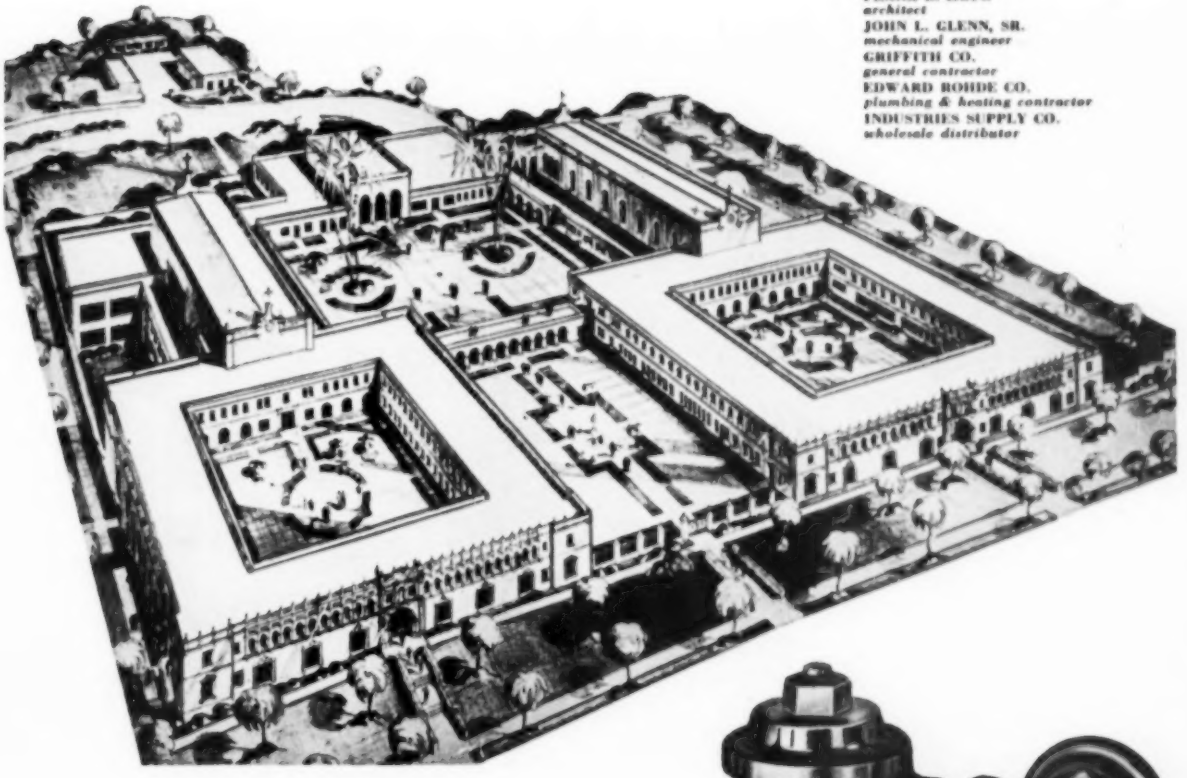

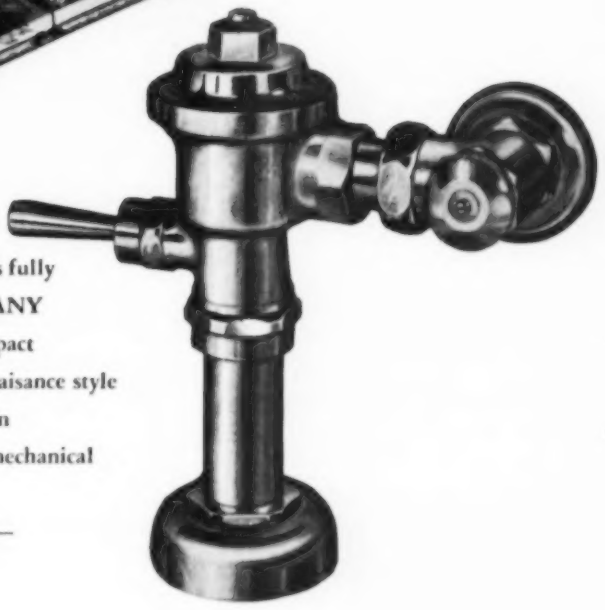

Appropriate perhaps to lower California, the flavor of old Spain is strongly felt in the design of this fully integrated college campus—an unusual COYNE & DELANY installation now under completion. In this compact scheme, the traditional externals of the Spanish Rennaisance style are blended nicely with the most progressive in appointments and equipment. Contributing to a finer mechanical system through their simplicity and unmatched design will be a large number of flush valves by DELANY—the fastest growing name in flush valves.

Under trying water conditions, an invaluable feature of all DELANY VALVES is the protected monel metal bypass shown at left. In this trouble-susceptible area in all flush valves, the use of monel precludes corrosion. Further real protection of the minute orifice against clogging by sand and debris is afforded by a fine mesh monel screen. It is sluiced clean with every flush, limiting the need for periodic dismantling and cleansing.

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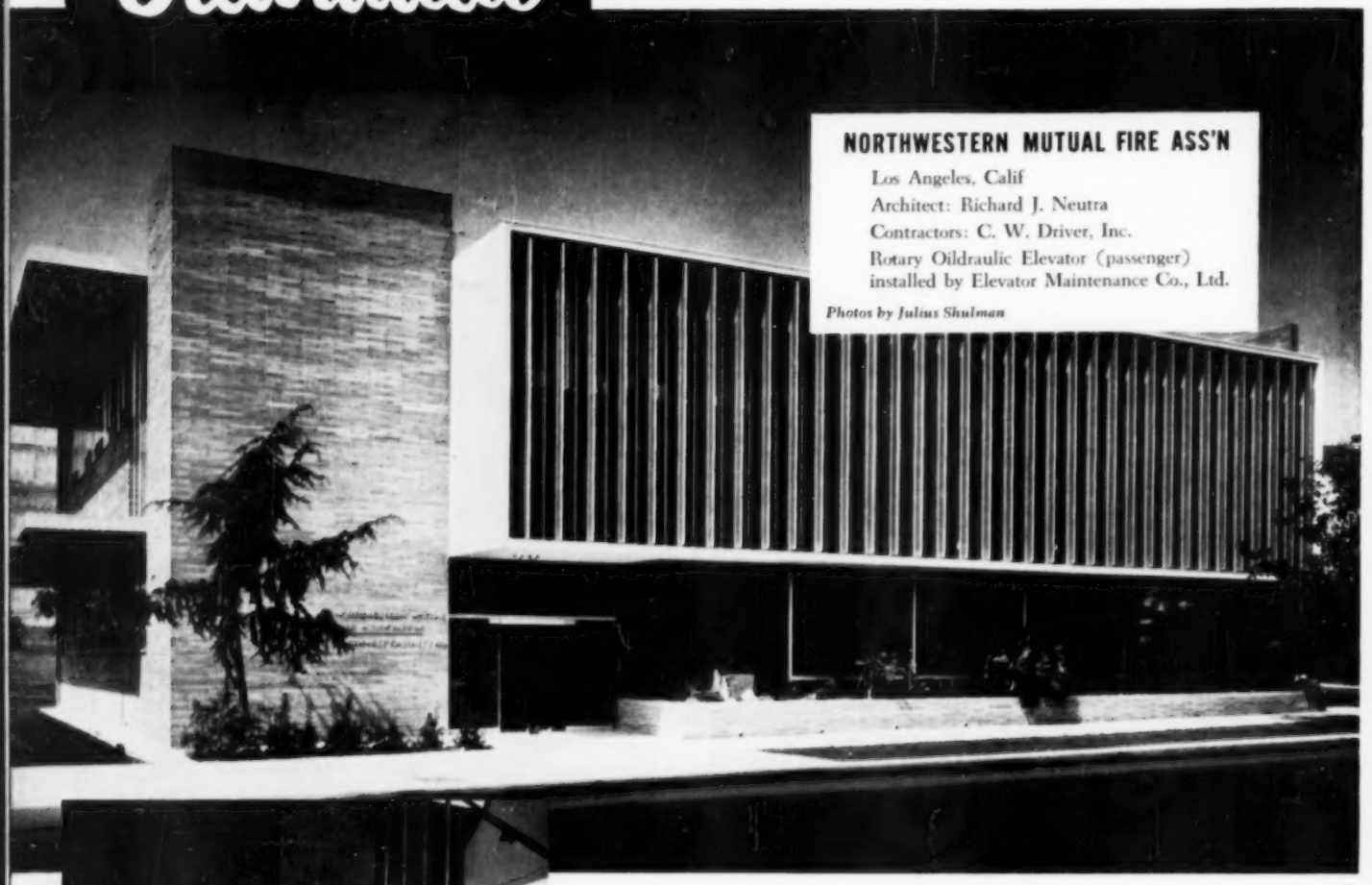


NORTHWESTERN MUTUAL FIRE ASS'N

Los Angeles, Calif
Architect: Richard J. Neutra
Contractors: C. W. Driver, Inc.
Rotary Oildraulic Elevator (passenger) installed by Elevator Maintenance Co., Ltd.

Photos by Julius Shulman

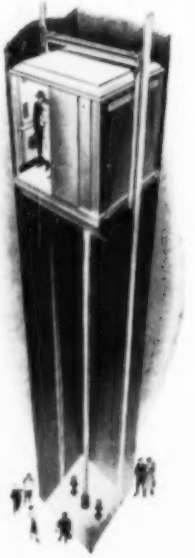
Oildraulic Passenger Elevators

The velvet-smooth fluid operation of the Oildraulic system is ideal for passenger elevator service. You can depend on gentle starts, cushioned stops and accurate landings. Any desired types of cabs, doors and controls can be supplied.

No penthouse or heavy supporting sidewalls needed

The Rotary Oildraulic Elevator is moved and controlled by oil under pressure, the most powerful and practical of all methods of lifting heavy loads. The elevator car and its load are supported by the hydraulic system—not by the building structure. This makes possible a substantial lightening of the shaftway structure, with savings in construction costs. There's no need for heavy, load-bearing sidewalls, supporting columns and footings ordinarily required to carry the overhead machinery, the car and the load.

No penthouse is used with an Oildraulic Elevator and, in many cases, a machine room is unnecessary. Rotary's compact power unit can be located on any landing, on any side of the hatchway—anywhere within 50 feet of the elevator. This saves valuable space.



for modern 2, 3 and 4-story buildings

CITIES SERVICE OIL COMPANY

Chicago, Ill.

Engineers and Contractors:
Sumner S. Sollitt Construction Co.

Rotary Oildraulic Elevator (freight) installed by Gallaher & Speck, Inc.

Photos by Torkel Korling

Oildraulic Freight Elevators

Oildraulic operation makes it practical and economical to design Rotary Elevators to carry loads up to 100,000 lbs. Oildraulic Freight Elevator cars have extra-rugged construction essential for rough, tough freight service and power truck loading.

Rota-Flow power system gives smooth, quiet, low-cost service

A revolutionary oil hydraulic power system moves Rotary Oildraulic Elevators on a smooth, continuous column of oil. Combined with the efficient Rota-Flow power unit to give perfect operation is the Oildraulic Controller. This engineering marvel handles the functions of seven separate control valves, simplifies adjustments and maintenance.

Smooth starts and stops are a feature of these modern elevators. Oildraulic automatic floor leveling positions the car to each landing with exactness—¼" accuracy is guaranteed!

Over 65,000 Rotary Oildraulic elevators and lifts are serving leading companies from coast to coast. Our Engineering Department will be glad to assist you. Write for catalog and complete architectural data.

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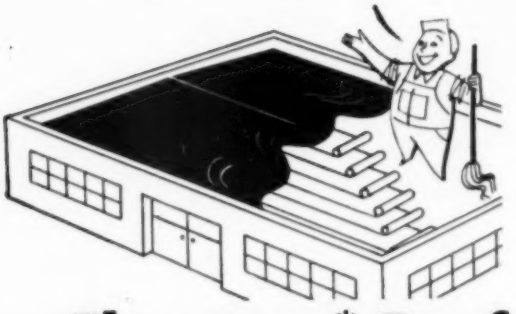

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Each ply is a flexible covering of stone!

THE SECRET of a Johns-Manville Flexstone Built-Up Roof is in the *felts*. They're made of fireproof, rotproof, weatherproof, enduring *asbestos*.

Flexstone Built-Up Roofs won't dry out from the sun . . . need no periodic coating. They're *smooth-surfaced*, too . . . permit thorough drainage, make any damage easy to locate and repair. They are engineered to each job . . . can be applied on decks ranging from dead level to a pitch of 6" per foot. J-M Asbestos felts are perforated to make application easier, give a smoother job, conform better to roof decks. Applied only by *J-M Approved Roofers*.

For your added protection, the Johns-Manville Asbestile* System of Flashing insures proper treatment of all critical areas. Asbestile is a heavy-bodied plastic cement designed for use with asbestos flashing felts to give thorough watertightness. As it sets, Asbestile becomes hard and forms an integral part of the wall itself.

Send for brochure BU-51A. Contains complete specifications for Flexstone Roofs and Asbestile Flashing System. Write Johns-Manville, Box 158, Department PA, New York 16, New York.

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DECORATIVE FLOORS • MOVABLE WALLS • ETC.

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ADD $$$ TO HOUSE VALUES—

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Mengel Mahogany Flush Doors are built with faces of genuine African Mahogany, which *automatically* upgrades any building in which it is used.

Yet you can buy Mengel Flush Doors, or Standardor Flush Doors, with faces of genuine African Mahogany, for fewer dollars than you'd pay for comparable doors of almost any domestic wood!

The Mengel Company operates its own logging concession and mill in the best Mahogany section of Africa, and imports this King of Woods in tremendous volume. *You get the savings!*

Equally important, Mengel and Standardor Flush Doors are built *better*, to give *better service*. Compare specifications, either in Sweet's or at your dealer's. You'll be glad you investigated!

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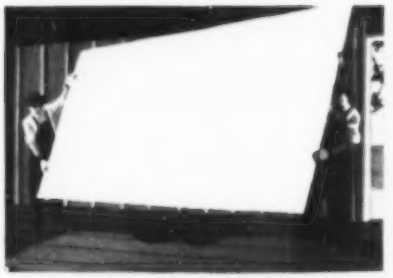

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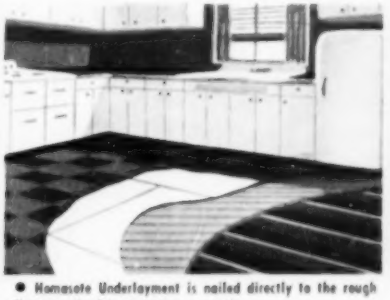

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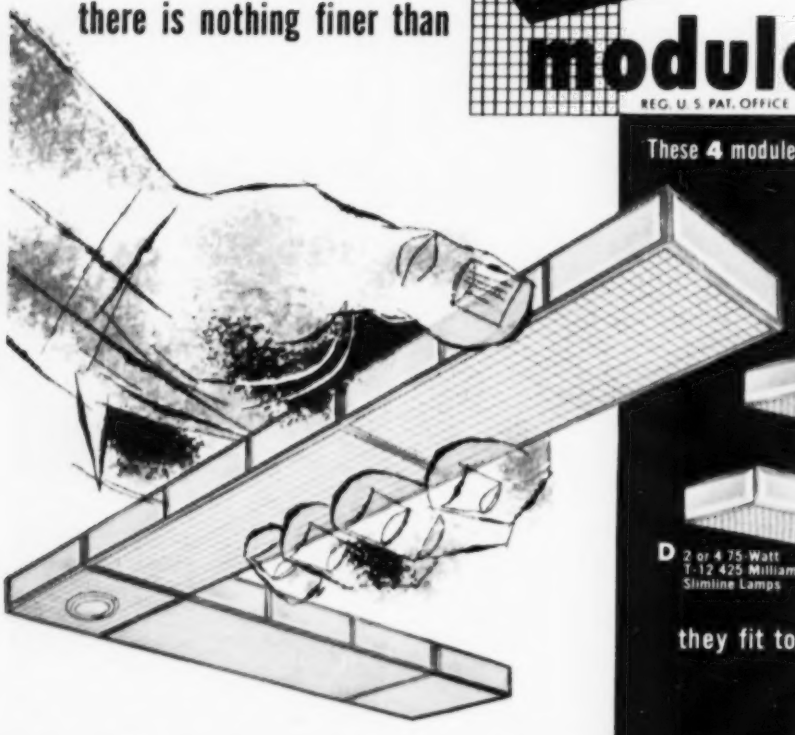

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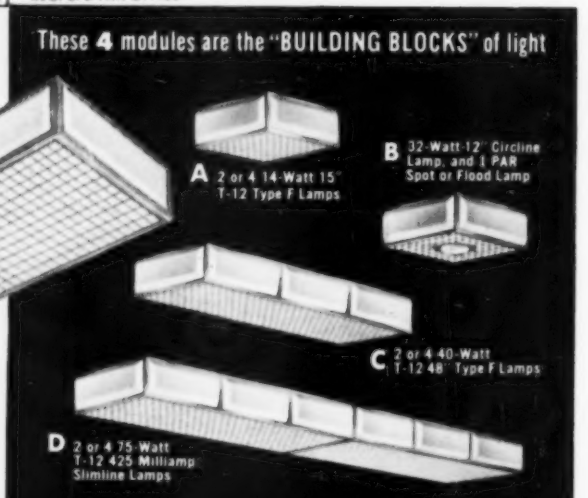
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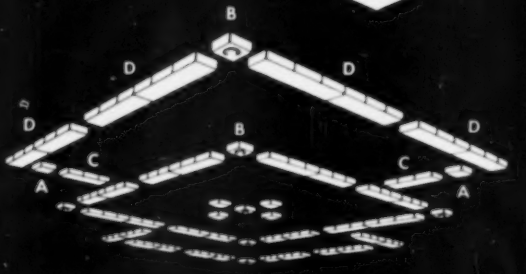

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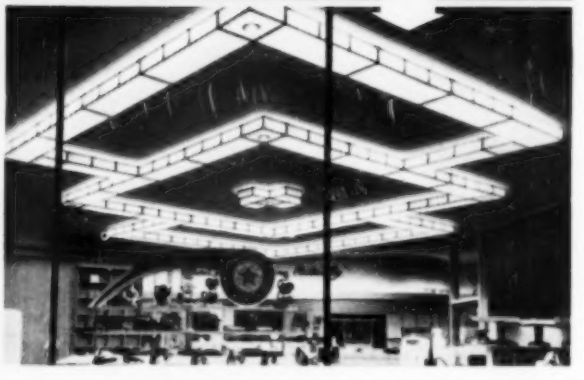

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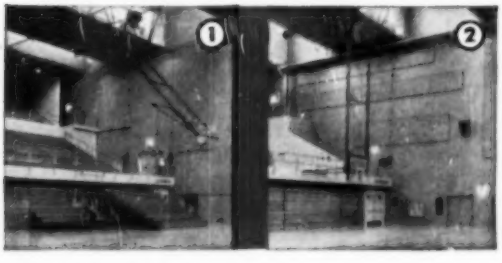
● Upper right photo shows main floor and balcony seats open to accommodate capacity audience. Above photo shows seats closed to recover all available floor and balcony space for class use. The other side of gym is similarly equipped with Medart Seats. Here is convincing evidence that a gym built to seat thousands of spectators need be but slightly larger than one with no seating at all—a tremendous saving in cost!



(1) Medart Telescopic Gym Seats are easily opened or closed in a few minutes. Only Medart has the easy-operating "Floating Motion" principle.

(2) Here are Medart Seats closed in below-the-balcony recess. Note how much floor area can be recovered when seats are not required.

Medart Telescopic Gym Seats* make possible huge reductions in building costs by saving the usual "wasted" floor area required for fixed seating. Open, they provide in a few minutes maximum safe and comfortable seating for capacity admission-paying audiences. Closed, they free almost every foot of floor space for daily class use. And the cost is far less than knockdown or built-in seats.

Medart Seat sections, using a *self-supporting* steel understructure, will safely carry loads of 400 pounds per linear foot per row. Each seat board, foot board and riser is supported by *4 vertical* steel uprights that place the live load on the floor where it belongs. Automatic retracting rubber-cushioned rollers protect floors during opening and closing of seats.

Versatile design permits the use of one or more rows as needed. The "Floating Motion" principle provides for easy opening and easy closing. These and the many other features in Medart Seats cost no more but promise extra savings in long service and lower upkeep.

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*Medart Telescopic Gym Seats are fully protected by U. S. Patents.

FRED MEDART PRODUCTS, INC. 3576 DE KALB STREET • ST. LOUIS 18, MISSOURI

Worlds Only Complete Single Source For Gymnasium Equipment

Telescopic Gym Seats | Lockers & Wire Basket Shelving | Lockerobes & Grade-Robes | Basketball Backstops | Physical Fitness Apparatus | Basketball & Football Scoreboards | Physical Therapy Equipment

Ronald Chatham photo

With special test equipment, velocity of air flow within model is accurately measured.

Measuring man-made breeze to bring better air to school children

Room model and wind tunnel tests show what kinds of fenestration systems provide the best ventilation.

WITH MORE AND MORE schools using Insulux Glass Block® for better daylight distribution, Kimble Glass Company wanted to be able to recommend ventilation practices that would keep pace with this modern method of daylight control.

The Texas Engineering Experiment Station tested a wide variety of schoolroom designs to determine the best methods of ventilation when using an Insulux Fenestration System.

If schoolroom ventilation is a problem that concerns you, you'll want a copy of the test report. Just mail the coupon. And, if you don't yet have a copy of "Better Light for our Children"—the 24-page booklet that describes the advances being made in the field of schoolroom daylighting—just check that box, too.

Insulux Glass Block Division
Dept. PA-1, Box 1035
Kimble Glass Company, Toledo 1, Ohio

☐ Please send me the report on ventilating glass block panels.

☐ Send the booklet "Better Light for our Children."

Name_____

Address_____

City_____ Zone_____

State_____

KIMBLE GLASS COMPANY

Toledo 1, Ohio

Subsidiary of Owens-Illinois Glass Company

For a wonderful house warming!

Smart wife! No drafts, no chilly floors, no cold spots in her new home. Smart husband, too! He made sure they got Chase Copper Tube Radiant Heating.

Like a giant radiator hidden in the floor or ceiling, Chase Copper Tube heats every room evenly from top to bottom. No worry about leaks because Chase Copper Tube and Solder-joint Fittings resist corrosion. They last for years and *can't* clog with rust.

Ask your architect, builder or heating contractor about Chase Copper Tube and Fittings for radiant heating. They are available across the nation through recognized Chase plumbing and heating wholesalers.

Telling Your Clients About Radiant Heating

This ad in the Saturday Evening Post and other leading consumer magazines is reaching 15,872,000 readers including most of your clients. Specify Chase on your next job.

Chase

The Nation's Headquarters for
BRASS & COPPER
Subsidiary of
KENNECOTT COPPER CORPORATION

CHASE BRASS & COPPER CO., WATERBURY 20, CONN., Warehouses and Sales Offices at:— Albany† Atlanta Baltimore Boston Chicago Cincinnati Cleveland Dallas Denver† Detroit Houston† Indianapolis Kansas City, Mo. Los Angeles Milwaukee Minneapolis Newark New Orleans New York Philadelphia Pittsburgh Providence Rochester† St. Louis San Francisco Seattle Waterbury (†sales office only)

Seattle's Efficient

MODERN SCHOOL ADMINISTRATION BUILDING*

Equipped with POWERS Temperature Control

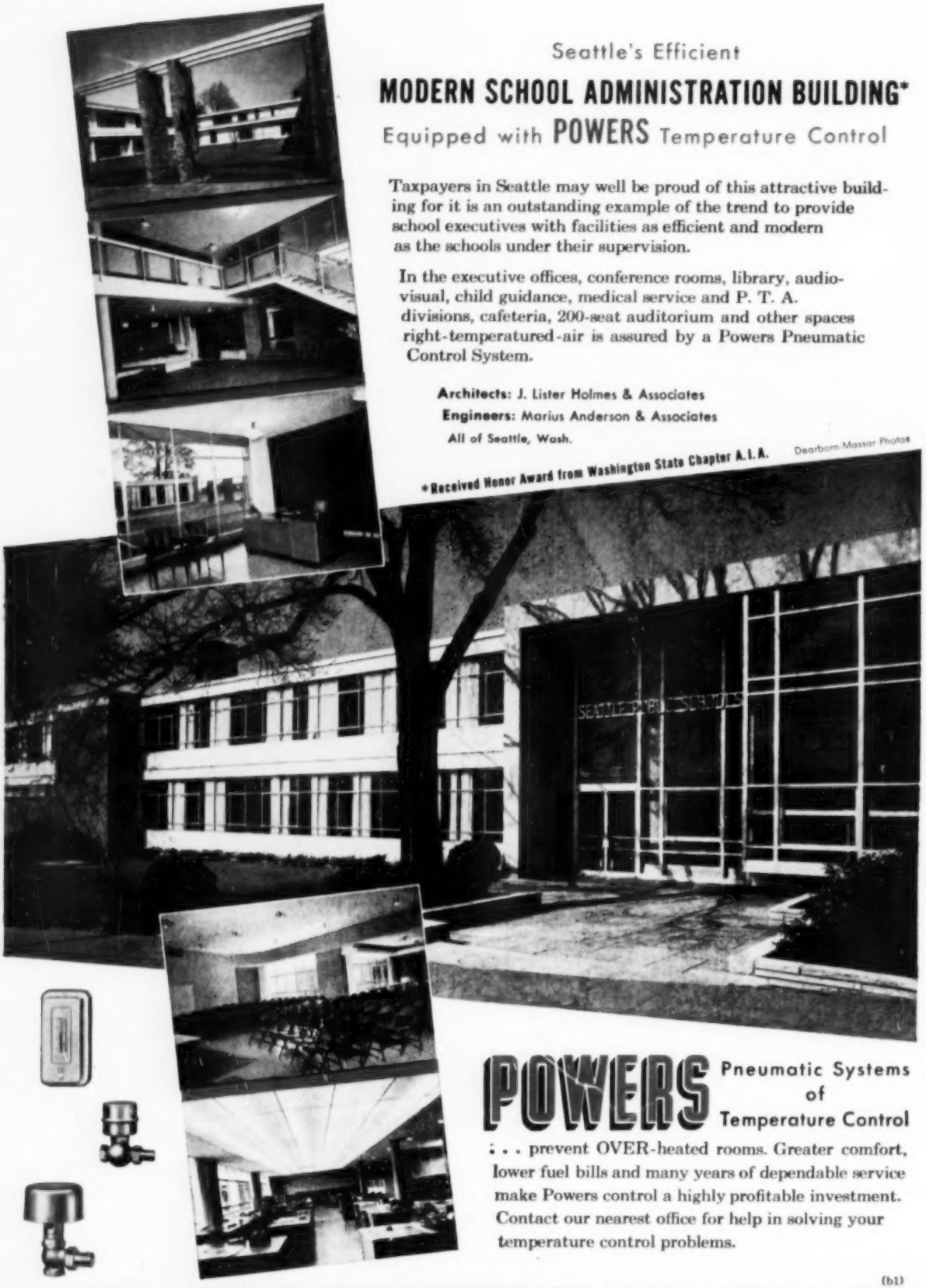
Taxpayers in Seattle may well be proud of this attractive building for it is an outstanding example of the trend to provide school executives with facilities as efficient and modern as the schools under their supervision.

In the executive offices, conference rooms, library, audio-visual, child guidance, medical service and P. T. A. divisions, cafeteria, 200-seat auditorium and other spaces right-temperatured-air is assured by a Powers Pneumatic Control System.

Architects: J. Lister Holmes & Associates
Engineers: Marius Anderson & Associates
All of Seattle, Wash.

*Received Honor Award from Washington State Chapter A. I. A.

Dearborn-Massar Photos



POWERS Pneumatic Systems of Temperature Control

. . . prevent OVER-heated rooms. Greater comfort, lower fuel bills and many years of dependable service make Powers control a highly profitable investment. Contact our nearest office for help in solving your temperature control problems.

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Established in 1891 • **THE POWERS REGULATOR COMPANY** • SKOKIE, ILL. • Offices in Over 50 Cities

LOOK WHAT AETNA DID IN HOUSTON!

Prudential Insurance Company of America Building—Houston, Texas
Kenneth Franzheim, Architect
W. S. Bellows Construction Corporation, General Contractors

Ezekiel W. Cullen Administration Building
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Alfred C. Finn, Architect
W. S. Bellows Construction Corporation, General Contractors

City National Bank Building—Houston, Texas
Alfred C. Finn, Architect
W. S. Bellows Construction Corporation, General Contractors

Southwest architects and contractors have been numbered among Aetna customers for a good many of Aetna's more than 50 years in the building-products field. Houston is particularly well represented at the moment with three recently-completed major building projects equipped with Aetna hollow metal doors, door frames and trim. The Southwest likes us for the same good reasons that others do —because the name Aetna implies:

- Thorough and painstaking engineering and technical co-operation and follow-through.
- Precision, quality mass production with assured scheduled deliveries.
- Confidence—an outgrowth of Aetna pioneering and leadership in the hollow metal field.

STEEL PRODUCTS CORPORATION

AETNA STEEL PRODUCTS CORPORATION

730 FIFTH AVENUE, NEW YORK 19, NEW YORK

MANUFACTURERS OF STANDARDIZED STEEL DOORS AND FRAMES FOR HOUSING UNITS.

FABRICATORS OF QUALITY HOLLOW METAL PRODUCTS FOR SCHOOLS, HOSPITALS, OFFICE BUILDINGS, ETC.

LOXIT TRIMS

Shown is surface-applied Loxit Trim which is also available for plastered-in jobs. All Loxit Chalkboard and Tackboard Trims are extruded from 63-S aluminum alloy. The anodized "GLO-DULL"* finish remains permanently beautiful and is easy to keep clean. *Reg. U.S. Pat. Office

LOXIT-TYLAC RITE GREEN CHALKBOARDS

RITE GREEN Chalkboards meet all classroom requirements. Excellent writing surface—easy erasing—strong—waterproof—washable. The color is just the RITE GREEN for low reflectivity and high readability.

LOXIT-TYLAKORK BULLETIN BOARDS

The TACKBOARDS are fabricated from ground cork, compressed under high pressure. Choice of six colors. Pins and tacks go into the cork easily—they hold tight—and the holes close when they are removed.

LOXIT AT YOUR SERVICE

There is a research department at LOXIT headed by an architect ready and willing to help architects, contractors and school authorities with the study and solution of special chalkboard, tackboard and accessory problems—without obligation.

WRITE TODAY!

For additional information about the complete LOXIT-TYLAC CHALKBOARD package-combination, including literature, catalogs and samples, write

LOXIT SYSTEMS, INC.
1217 W. WASHINGTON BLVD.
CHICAGO 7, ILLINOIS

AVOID "Chalkboard Blues"

Do chalkboard problems bother you? Are you concerned with the quality of chalkboards, their durability, appearance and maintenance? Would you be interested in a chalkboard system that is *complete* to the last detail, with built-in qualities which successfully meet every challenge? It's the Loxit Chalkboard System, a complete package-combination which includes LOXIT TRU-SNAP Extruded All-Aluminum Trim, LOXIT-TYLAC RITE GREEN Chalkboards, both the Junior ¼" thick and the Senior ½" thick (Senior Boards longer than 12' provided with tongue and groove); LOXIT-TYLAKORK Tackboards in six colors: Autumn Tan, Spring Green, Twilight Gray, Sun Tan, Leaf Green and Roadside Green; and accessory items. Loxit now offers a complete service in this field. Our technical department and factory research facilities are available to architects, contractors and school authorities to help them avoid "Chalkboard Blues."

SPECIFY THE *Complete* LOXIT CHALKBOARD SYSTEM

BRING IT TO LIFE *with Complete* BRASCO CONSTRUCTION

Brasco Store Front and Entrance Installation at Daytona Beach, Fla.
Architect: Wahl Snyder, Miami.

YOUR BEAUTIFULLY CONCEIVED STORE EXTERIOR can be brought to reality in authentic detail with complete Brasco Store Front and Entrance Construction. The wide variety of prefabricated shapes and complete assemblies available offer interesting possibilities for individualized design treatment with standard stock members.

Along with distinguished profiles, additional customer attraction is attained with sash rails only 25/32" high. Larger glass areas are exposed to permit full *Sellevision effects. The deeper, safer Brasco grip on the glass is uniformly maintained for maximum, all-weather protection.

Our Safety-Set store front construction is expertly fabricated in both heavy gauge stainless steel and anodized aluminum. Harmonious in design, handsome, sturdy Brasco Aluminum Entrances assure complete owner satisfaction with smooth, dependable operation. New 1953 Catalog illustrates more than 170 useful Brasco members for all store front requirements. Mail coupon for your personal copy. *©

New 1953 Catalog

BRASCO MANUFACTURING CO.
HARVEY - (Chicago Suburb) - ILLINOIS

Specialists in Metal Store Front Construction for more than 40 Years

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Send the NEW BRASCO CATALOG to

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Company _____
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LIBRARY *with* EYE APPEAL

Hutchinson Public Library, Hutchinson, Kansas
English, Miller & Hockett, Architect

Structural Corrugated Glass by Mississippi Gives Modern Look to Well-Designed Structure

This library took a page from one of its own books. Carefully planned treatment of entrance and exterior walls to take fullest advantage of the properties of translucent glass achieves an atmosphere that invites the reader. The entire room is flooded with soft, natural light by day... glows a warm welcome to patrons at night. The effect is that of clean, crisp, modern efficiency that still retains a friendly feeling.

Structural Corrugated Glass by Mississippi is being specified by architects everywhere for its beauty and utility. This modern material offers new scope for talents, suggests numerous ways to handle design problems. Manufactured in a wide variety of patterns and surface treatments, Mississippi Figured glass is available wherever quality glass is sold. Select glass by Mississippi for your plans and add sparkle to your ideas.

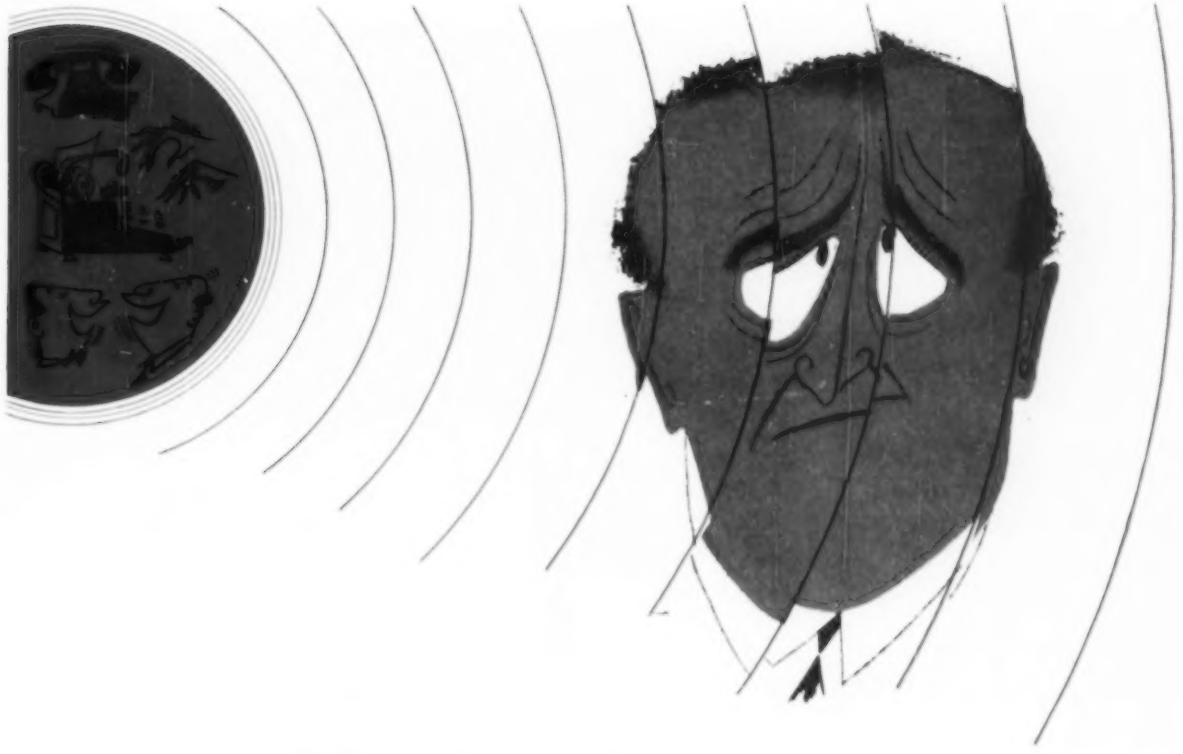
Write today for free booklets, "Figured Glass by Mississippi" and "Modernize Your Home With Decorative Glass". Contain many ideas on ways to utilize this dramatic material in modernization or new construction.

MISSISSIPPI *Glass* COMPANY

88 ANGELICA ST. SAINT LOUIS 7, MO.

NEW YORK • CHICAGO • FULLERTON, CALIF.

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



ECHO NERVES

They're the occupational disease of today's working and living. Telephones jangling . . . heels hammering . . . typewriters clacking . . . the myriad of distracting noises so common in a busy office—where lack of noise control can cause serious loss of efficiency and lasting damage to overwrought nervous systems.

Kaiser ECHOSORB is scientifically designed to control noise problems, and in addition has other premium advantages which make it the growing favorite of the Nation's sound engineers.

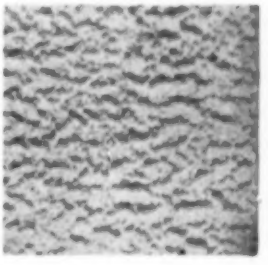
INCOMBUSTIBLE **Made of expanded perlite, Kaiser ECHOSORB meets the requirements of building codes which specify the use of non-combustible accoustical materials.**

HIGH SOUND ABSORPTION **From the scientifically designed fissures and inherent porosity of the expanded perlite ore.**

ARCHITECTURAL SYMMETRY **The casual fissured pattern of the tile represents a beautiful expanse of surface which blends attractively with any type of well designed interior.**

LIGHT REFLECTING QUALITIES **Completely adaptable to indirect lighting methods for schools, hospitals, offices, public buildings.**

EASE OF APPLICATION **Light weight and exact uniformity of dimensions makes installation speedy and inexpensive.**



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ACOUSTICAL MINERAL TILE

A PRODUCT OF KAISER GYPSUM COMPANY • LOS ANGELES • OAKLAND • SEATTLE

IT'S FACING TILE . . . *No other single building material gives you so much for so little*

when walls must outlast crowds

No other interior finish can match Facing Tile—in any building designed to withstand the constant buffeting of a sea of humanity.

Facing Tile's durability has been time-tested by traffic in today's finest bus terminals, airports, steamship docks, subway and railroad stations.

Facing Tile walls can't be scarred by the passing throng—they'll keep their soft, pleasing colors for the life of the building, never require refinishing. And they wash down so easily that cleaning costs are pared to a minimum.

Your clients will also like the construction savings **afforded by Facing** Tile. Made in modular-sized **units, it goes up fast,** provides a structural wall and a lasting finish in a single cost-cutting step.

For full data on Facing Tile, glazed or unglazed, just write. Address: Desk PA-1, Facing Tile Institute, 1520 18th Street, N.W., Washington 6, D. C.

In the interest of better Facing Tile construction these companies have contributed to the preparation of this advertisement.

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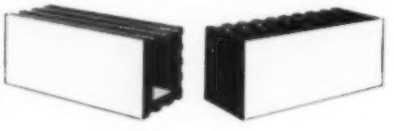
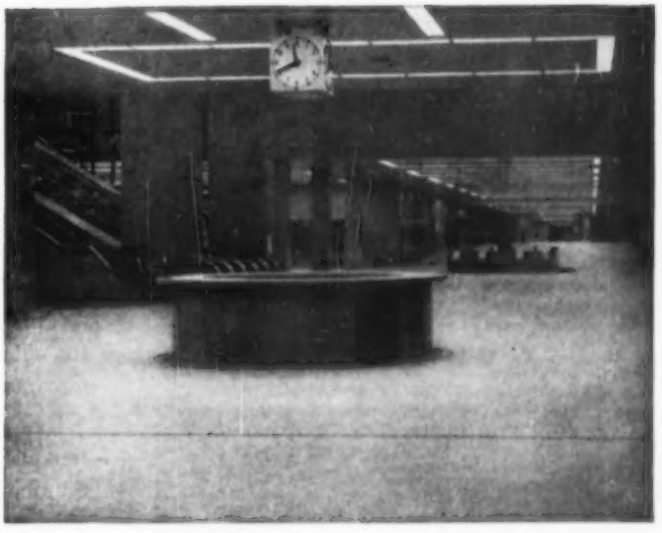
FACING TILE INSTITUTE

1520 18th Street, N.W., Washington 6, D. C. • 1949 Grand Central Terminal, New York 17, N. Y.



This seal FTI *is your assurance of highest quality Facing Tile.*

Where TERRAZZO keeps its beauty beneath a quarter-million busy feet



NEARLY THREE ACRES OF TERRAZZO using Atlas White Cement give beauty *plus* long life to floors of Port of New York Authority's Midtown Bus Terminal. 1,800 barrels of Atlas White Cement went into the mammoth project.

TWICE A DAY, 60,000 commuters surge through the Midtown Bus Terminal, world's biggest, in New York City. Thousands more rush to long-distance lines . . . visit scores of shops, restaurants and service stores within the vast structure. Scuffing feet . . . scraping luggage . . . such scarring traffic would quickly wear the life and beauty out of other floors. But these are long-lasting Terrazzo floors . . . made with Atlas White Cement . . . tough as concrete . . . beautiful as marble.

Like the owners, designers and builders of this terminal, more and more construction professionals are choosing floors of Terrazzo made with Atlas White Cement. For, so made, color and design possibilities are unlimited; beauty endures, year after year; and maintenance costs are annually low.

For further information see SWEET'S Architectural Catalog, Section 4g/Uni and 13f/Un, or write Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.

Owner: PORT OF NEW YORK AUTHORITY, N. Y. C.
Builder: TURNER CONSTRUCTION COMPANY, N. Y. C.
Terrazzo by DEL TURCO BROS., NEWARK, N. J.

"THEATRE GUILD ON THE AIR"—*Sponsored by U. S. Steel Subsidiaries, Sunday Evenings—NBC Network*

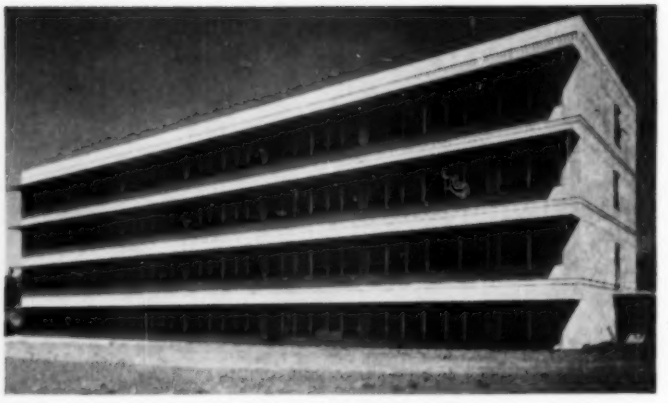
PA WCT-70

FOR BEAUTY AND UTILITY

ATLAS WHITE CEMENT

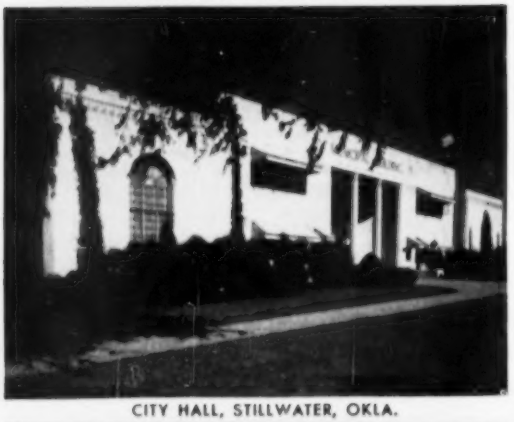
FOR TERRAZZO, PAINT, SLABS, STUCCO

WATER WORKS, PINE BLUFF, ARK.



HOSPITAL, WILMINGTON, OHIO

ELEMENTARY SCHOOL, MINNEAPOLIS, MINN.



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Distinctive Beauty and Outstanding Service for Municipal Buildings with

Architectural Concrete

These examples show the possibilities architectural concrete offers the architect for designing municipal buildings to make any community proud.

This versatile structural material has rugged strength, unexcelled resistance to the elements, maximum firesafety and long life.

Being moderate in first cost, needing little maintenance and having long life, architectural concrete municipal buildings will please both taxpayers and officials with their ***low annual cost.***

Our technical staff will gladly help you obtain the structural and economical advantages of concrete. Free literature, distributed only in the U.S. and Canada, is also available on request.

PORTLAND CEMENT ASSOCIATION

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A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work

Architectural Terra Cotta
...first for beauty and lasting quality!

Whatever the project you are planning—industrial, monumental or mercantile construction—you can design with greater freedom when you specify architectural terra cotta. It is custom-made to meet your most exacting requirements—individual units large or small, plain surfaces or decorative sculpture, brilliant colors or delicate tints. This versatile building material enables you to create interiors or exteriors of lasting beauty. The original richness of its ceramic-glazed finish can be retained indefinitely by simple soap-and-water washings. No other modern building material offers you so much as architectural terra cotta.

Construction detail, data, color samples, advice on preliminary sketches, will be furnished promptly without charge. Send your inquiry to Dept. P.J.

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MONTREAL, CANADA
J. C. Meadowcroft & J. A. Loumos—*Architects*
W. & F. P. Currie, Ltd.—*Contractors*
Wainscot for main lobby, stairway and second floor lobby is Enduro-Ashlar Architectural Terra Cotta. Color is light burgundy. Units are 8" x 20".

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ASK THE AEROFIN MAN

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Aerofin is sold only by manufacturers of nationally advertised fan system apparatus. List on request.

There is a competent Aerofin heat-transfer engineer near you, qualified by intensive training and long experience to find the *right* answer to your own particular heat-exchange problem.

This specialized knowledge is there, ready for you to use to your greatest advantage. Ask the Aerofin man — and be right.

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410 South Geddes St., Syracuse 1, N. Y.

You can compress it...

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...wet it...

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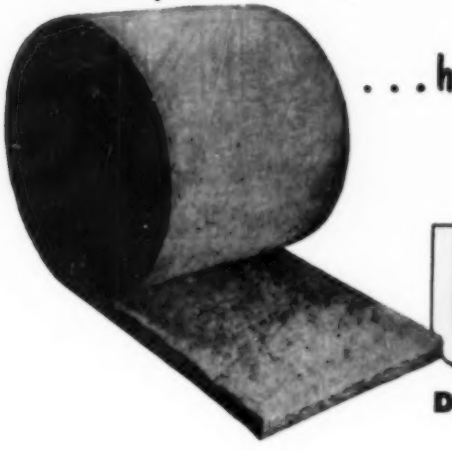

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THAT CAN TAKE IT!

ULTRALITE

DUCT INSULATION AND DUCT LINER

No other insulation can take so many kinds of punishment—*and still retain its original thermal and acoustical properties*—as ULTRALITE, the long glass fiber insulation. And architects and engineers everywhere are discovering that this rugged-yet-resilient insulation means better thermal and acoustical treatment for ducts, at lower applied costs.

ULTRALITE'S unique r-e-s-i-l-i-e-n-c-e is the architect's assurance that it will stand up under the vibration of ducts indefinitely. Today, ULTRALITE Duct Insulation and Duct Liner are on the job in scores of hospitals, churches, schools, factories, institutional buildings, as well as in such outstanding buildings as the Statler Center, the Mellon Building, Lever House and the Alcoa Building.

Complete details on this superior thermal and acoustical insulation are in Sweet's File (Architectural) Section 10, and 71 distributors of ULTRALITE in major cities carry local stocks for prompt delivery. Cal your local ULTRALITE distributor (listed in the Yellow Pages) for information, or write for samples and complete details.

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Keeping pace with the Nation's industrial requirements through research and development—since 1898.

NOW...

Wascolite Skydomes framed in

Extruded ALUMINUM

THE PIONEER PRE-FABRICATED ACRYLIC SKYDOME . . . NOW RESEARCH-IMPROVED FOR GREATER STRENGTH, GREATER BEAUTY, GREATER PERMANENCE, GREATER ECONOMY

FIRST with "the dome that floats in its frame". . .

FIRST with the protected edge . . .

FIRST with Daylight Engineering Service . . .

NOW FIRST AGAIN with frames of extruded aluminum . . .
for a great advance in performance . . .

AT NO ADVANCE IN PRICE!

Extruded aluminum shapes .078" thick — 4 times as thick as sheet stock. Mitred welded joints. When Wascolite Skydomes go in, maintenance costs go out.

AND THE PRICELESS WASCOLITE *EXTRA*

We will prepare a scientific Daylighting Study on your next job without cost or obligation. Send us blueprints and lighting requirements; we will send you specs. and drawings showing size, type, number and spacing of Skydomes for correct balanced illumination.

Write for new A.I.A. Folder **WASCO FLASHING CO.**
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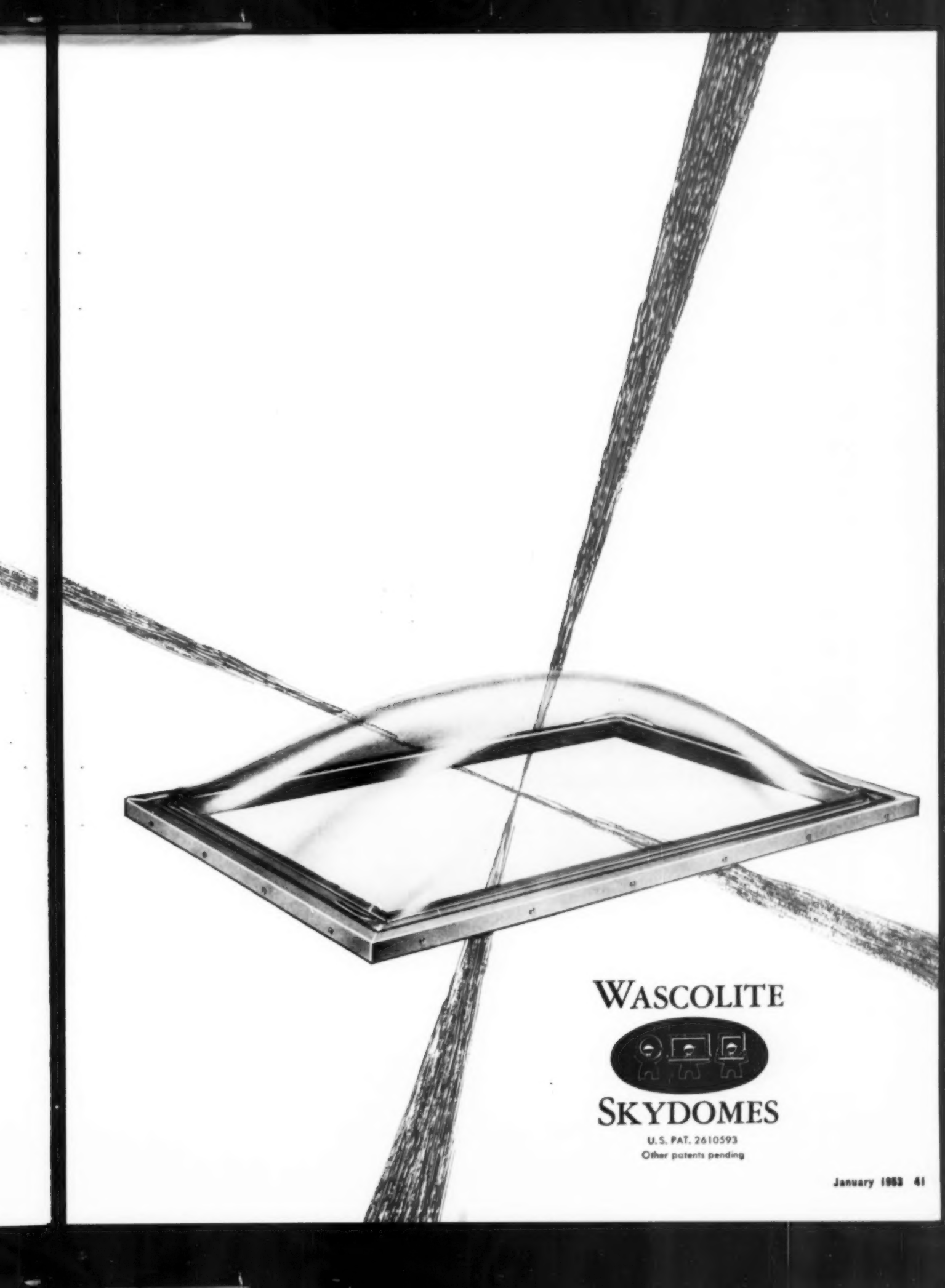
WASCOLITE
SKYDOMES
U.S. PAT. 2610593
Other patents pending

repeat

performances with

. . . Roddiscraft Hardwood Plywood Paneling

A RODDISCRAFT finished wall is a single performance—once installed, it's there to stay—little or no maintenance required—beauty that grows with age.

Compare the economy of single performance paneling with the periodic repeat performances required with other types of walls. Painting and papering every few years soon add up to far more than the original cost of plywood paneling.

Yes—it's the elimination of repeat performances that today make the one job installation of a plywood wall the best buy for economy, beauty and utility—and a Roddiscraft wall will last as long as the building.

Roddiscraft hardwood plywood is a craftsman's product—quality built from veneer selection to final sanding. Available in a wide variety of domestic and foreign woods.

Be sure of the best—specify Roddiscraft—

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

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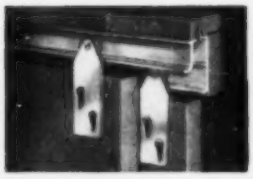
Roddiscraft

RODDIS PLYWOOD CORPORATION
Marshfield, Wisconsin

FOR KITCHEN CABINETS

By-passing
2, 3 or 4 doors.
Fully adjustable.

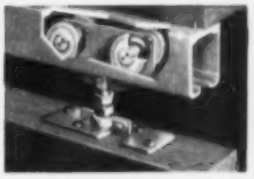


SERIES 250A Packaged kit—Deluxe track with exclusive step-up design that hides hardware from view. Designed for ¾" kitchen cabinet and light wardrobe doors.

SCOTTIE SERIES Packaged kit—Low-priced hardware for ⅜" to 1⅜" by-passing doors. Sturdy extruded aluminum track; taper-lock hangers with ⅝" vertical adjustment.

FOR ROOM TO ROOM

Single or converging
open or closed pocket
disappearing doors.



SERIES 400A Packaged kit—Also used in Series 800 KENNAFRAME . . . a prefabricated frame for pocket doors up to 150 lbs. Adjustable ball-bearing hangers; 8 wheels per door.

SERIES 350 Packaged kit—Also used in low-priced Series 900 SCOTTIE K-FRAME . . . a prefabricated frame for closed-pocket doors up to 100 lbs. Adjustable hangers; 8 wheels per door.

take the guesswork out of sliding door installations!

SELECT FROM KENNATRACK

FOR SMALL WARDROBES

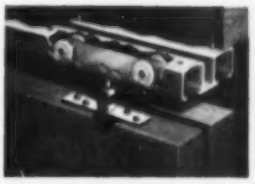
By-passing
2, 3 or 4 doors.
Fully adjustable.

SERIES 250A Packaged kit—Deluxe track with exclusive step-up design that hides hardware from view. Designed for ¾" kitchen cabinet and light wardrobe doors.

SCOTTIE SERIES Packaged kit—Low-priced hardware for ⅜" to 1⅜" by-passing doors. Sturdy extruded aluminum track; taper-lock hangers with ⅝" vertical adjustment.

FOR LARGE WARDROBES

By-passing, heavy 2, 3
or 4 doors. Adjustable
or non-adjustable.



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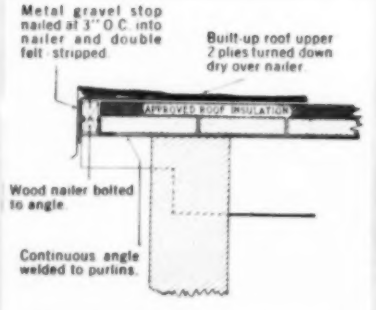
Metal gravel stop nailed at 3" O.C. into nailer and double felt stripped
Built-up roof upper 2 plies turned down dry over nailer
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SUBJECT: Q-Floor
Capitol Annex
Frankfort, Kentucky

July 11, 1952

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Pittsburgh, Pennsylvania

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The erection of Robertson Q-Floor was started November, 1950. In spite of an unexpected severe winter comparable to weather along the Great Lakes, work proceeded with little interruption.

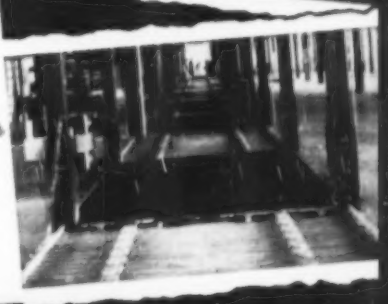
As fast as Q-Floor was laid, we stacked it with stone and masonry materials. If we had not been able to accept this material, especially the stone, two large limestone mills would have had to cut production. For at least two months, heavy snow stopped deliveries on other orders from these same mills. Without this storage, we could not have accumulated enough stone to keep going when the weather moderated. An eight weeks quarry strike occured when we had about eighty per cent of limestone on the job. We lost only about a week of setting time because of the stock we had on hand.

This building is radiant heated. The contractor began welding his coils as the outside walls went up. There were about fifteen miles of coils and probably five miles of steam and return piping installed on the Q-Floor. The welding and testing of these coils took about eight months. With certified welders in short supply, any delay would have meant that this job would have been without heat for finishing in the winter of 1951-52. There was no delay.

The concrete fill on Q-Floor was delayed until weather conditions were favorable. It was possible to do an excellent job of finishing without temporary protection and heating expense necessary with reinforced concrete. The fill was poured checkerboard and a mechanical screed was used for striking off, but few hairline cracks appeared except at control points. We had no trouble from bad bonding and warping as is apt to occur on fill over concrete.

Our experience has convinced us that Robertson Q-Floor offers advantages that should not be overlooked by the designer or the builder.

Sincerely yours,
W. J. Pouchot
W. J. Pouchot, Supt.



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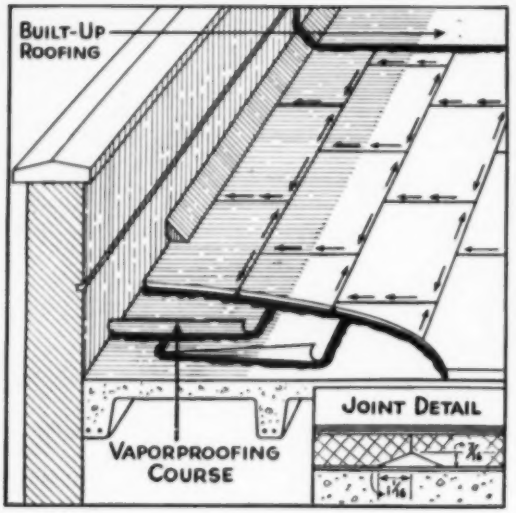

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design/techniques 1953 | *FORECAST*

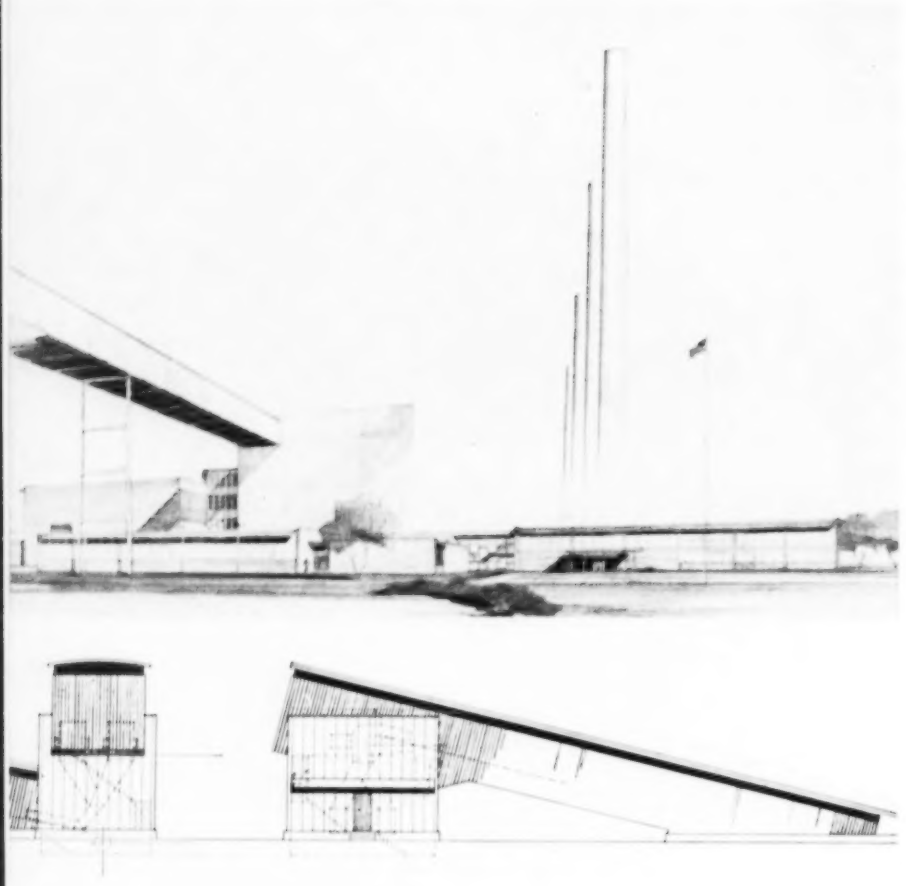
There is a busy year ahead for the architects in the United States—one of the busiest that architects as a whole have ever had. P/A's annual survey indicates that the average active firm will make working drawings for $4,037,000 of construction in 1953, an increase of 25% over the past year's volume; and in 1953 the average firm will see $3,767,000 of its work reach the construction stage, an increase of 30% over 1952's figure. The Michigan area expects the largest average volume (due to continuing defense work) and the Northwest region the lowest, according to reports to P/A. Schools and housing will be the two most active building types, aside from defense commissions. Employment opportunities in the architectural profession should be good—average staff in the firms surveyed is expected to increase from 10 to 12. New structural techniques and the use of a few new materials will have a noticeable effect on design trends this year. Government restrictions—the last of which are expected to be lifted shortly—have not markedly influenced the preliminary design and specification of 1953's new buildings.

That is the quick summary of P/A's third first-of-the-year survey estimates, supplied to us by the architects themselves, based on work on their boards in both preliminary and final design stages. On the next two pages is an analysis by regions and by building types of the figures compiled from questionnaires returned from representative offices, large and small, in big cities and small towns all over the country. And through the pages that follow is a sampling of the most interesting projects that are likely to go ahead during the year.

The selection of illustrative material was again made with the advice and assistance of a "jury" of editorial advisors. John Grisdale, Philadelphia architect, of the firm of Carroll, Grisdale & Van Alen; Sidney L. Katz, New York architect of Katz, Waisman, Blumenkranz, Stein, Weber, Architects Associated, and teacher at Pratt Institute; and Robert W. McLaughlin, Jr., New York architect, of the firm of Holden, McLaughlin & Associates, and Director of the School of Architecture at Princeton University: these were the men who helped the P/A Editors make this year's selections from the material submitted. On page 52 there is a summary of design trends, as they seemed to be indicated in the designs examined by the Editors and the Advisory Jury.

This year, for the first time, P/A sent questionnaires to a number of Consulting Engineers. The significant developments that they reported in relation to the work on *their* boards are discussed in a section of this issue starting on page 88).

Here, then, is what 1953 in architecture in the United States will constitute—and what it will look like.



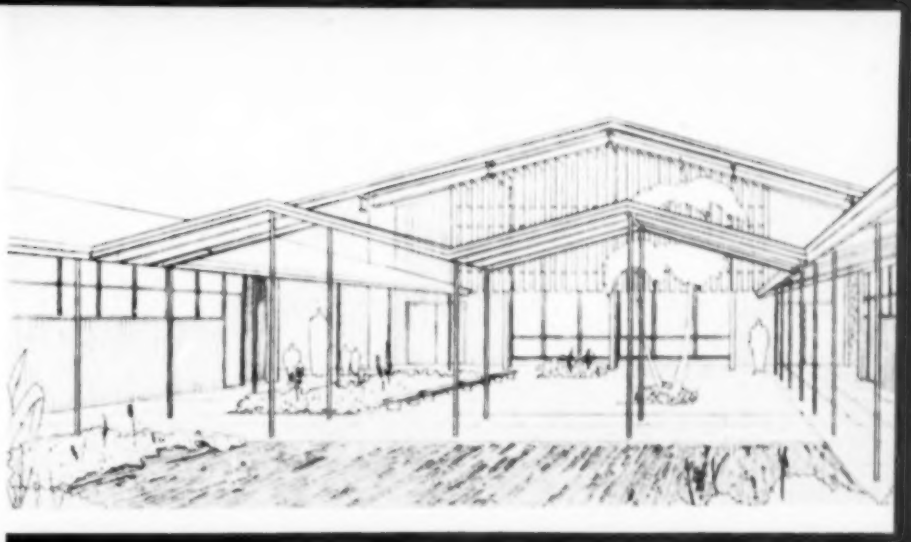
Colbert Steam Plant, Colbert County, Alabama: Tennessee Valley Authority Division of Design. "Wonderful . . . beautiful . . . marvelous" were words the Jury found to describe this most recent in a long line of TVA architectural triumphs. According to Harry B. Tour, TVA Head Architect, "the exposed structural steel frame will be painted dark blue-green; warm-gray face brick will be used for fin walls and first-floor spandrels, with fluted, insulated-aluminum panels above . . . The conveyor system (detail, left below) *will have maroon, asbestos-protected metal siding, fluted, with a continuous opening at the eaves for light and ventilation."*

Illustration credits: page 136

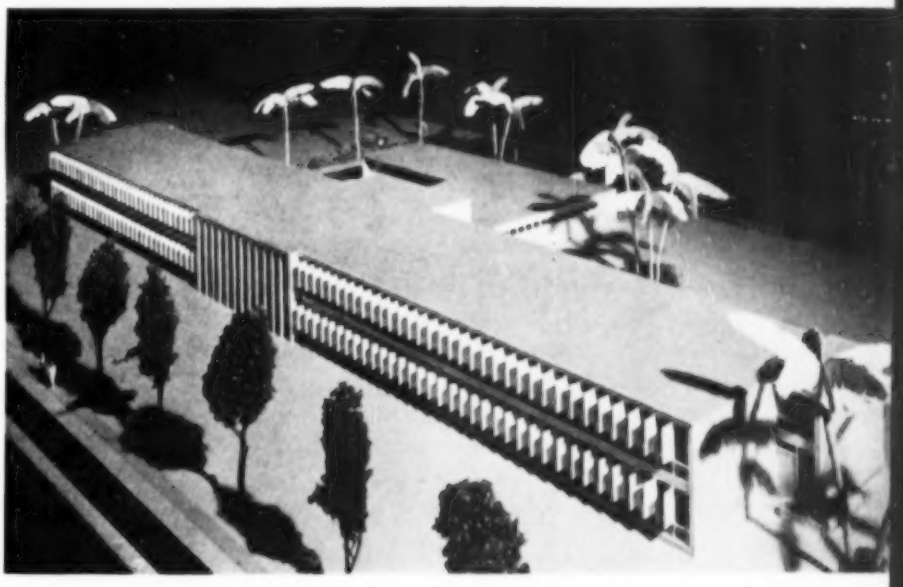
Several over-all conclusions can be drawn from the figures supplied this year. There seems to be no doubt that the volume of *architect-designed* work will increase substantially in 1953 over 1952.

Last January, the architects reported an anticipated drop from the year before: an analysis of government figures for actual total 1952 construction shows that in the building types from which most architects gain most of their commissions, there *were* drops—private residential, commercial, educational, health, and religious structures all fell off. The order in which architects estimated that building types would supply dollar volume of work this past year (residential, industrial, educational, defense, health, commercial, public use, and religion, in that order) also held true with one exception: commercial work last year topped building for health, by a hair. Since these architect-supplied estimates have proved-out once more, we feel confident in reporting that a substantially greater total volume, as well as proportionate volume, of construction designed and controlled by architects, can be expected in 1953.

Before there can be any comparative discussion of building types this year, something must be said about defense work. Judging from the figures supplied, work for the military and naval establishments, for AEC and for other purely defense agencies may have a larger dollar volume than any other activity. And yet it would not be fair to average this work with other building-type categories, because the great bulk of it is concentrated in the reports of a few big firms, and in a few districts; it averages only 8% of the work reported



Garfield School, Arden-Carmichael Union Elementary School District, Carmichael, California: John Lyon Reid, Architect. To be built with special State funds extended to provide minimum schoolhousing in areas where the need is critical, the school will serve children from kindergarten age through the sixth grade. Estimated cost: $209,328. The enclosed court between classroom wings (right) is used for outdoor eating and is adjacent to the multiuse room (background).



Tuberculosis Mental Hospital, Phoenix, Arizona: Weaver & Drover, Architects. A 100-bed hospital, to be built as part of the expansion program for the Arizona State Hospital; $450,000. In the architects' opinion, the item of main interest is a "tree-shaped rigid steel bent frame," with the cantilever areas housing the metal-louvered sun terrace (that borders the patients' rooms) on the south (right) and nursing services on the north.

by other firms over the country. So let us recognize the fact that design for defense will be the major activity of some architects, but not of many, and then see how the other building types compare.

The four leaders are: education, 26%; housing, 20%; commercial, 18%; industrial, 16%. Health drops to 8% of the estimated volume; there follow public use, 7%; and religious structures, 5%. It is interesting that educational design leads the list in all regions of the country except the Detroit area (where industrial activity is top, with education second) and Texas (where commercial work leads, but education again is second). The highest averages for hospital work were reported from the Gulf states; for housing from the Chicago area; for church building from the Northwest and the Midwest.

While architects' business prospects seem good, there will apparently be a difference by regions. Although more than half of the reporting firms anticipate an increase in work (average hopes being a 50% boost), about 20% expect business to drop (average estimate being two-thirds last year's total). Most optimistic estimates for percentage increases came from architects in the Southeastern states; most pessimistic from the Gulf states. Others held near national averages. As far as dollar-volume differences are concerned, there is also a variation by regions. The Detroit industrial area reports the highest average (even after the defense work has been removed from the figures) with California next and the Northeast, third. The Northwest has the lowest average, with the Rocky Mountain region slightly above it.

design/techniques 1953: *FORECAST*

This is not a jury report, in the true sense, for the designs that follow, but there was a good deal of discussion among the regular and the Advisory Editors during the selection period, which may be summarized. Design techniques for 1953, the group felt, are:

. . . more impressive in residential and institutional work, than in commercial or industrial.

. . . in general, a reflection of the indecisions and the uncertainties of the time.

. . . inclined to be better planning solutions, than successful esthetic expressions.

. . . refinement of accepted design concepts, more often than attempts at originality.

. . . more understanding and more successful expressions of structure, than heretofore.

Among the building-type categories, the Jury felt that house design showed a much more sure and more developed approach than any other. Commercial work in general was not admired, although there was recognition of the need for solving customer-attraction problems. "O.K. for a promotional type of building," was a typical comment. The two projects shown in the PROGRESS PREVIEW section of this issue (pages 15 and 16) were recommended as "good combination of advertising and architecture." TVA's submission was the only one in the industrial category that the Jury fully liked. "Wonderful to see good strong work still going on there," was one man's comment.

As an over-all picture of design accomplishment, there was a feeling that today's design reflects today's uncertainties. If an architecture is an expression of its period in social history, then this architecture, devised in 1952, probably must reflect indecision and unsureness. Perhaps 1953 will offer a more stable social background in which to bring these designs to fulfillment.

Economic planning problems are more capable of sure definition and specific solution than abstract design problems, and the jurors found themselves commenting in many instances, "A good serious job," or, "Will probably wear a lot better than some of the more flashy schools," or even, "Not terribly pretty—a little bit crude—but well planned. We like it."

While the jurors were not searching for startlingly new design just for the sake of newness, there was a feeling of disappointment that little originality was to be found. It is good, they felt, to develop and improve and stabilize contemporary design concepts, but there seemed to be a sameness and even a copying of established elements that was disappointing. "Good example of current architecture," one man remarked about a well-known architect's house design. "Yes," responded another, ". . . it has all the fashionable features."

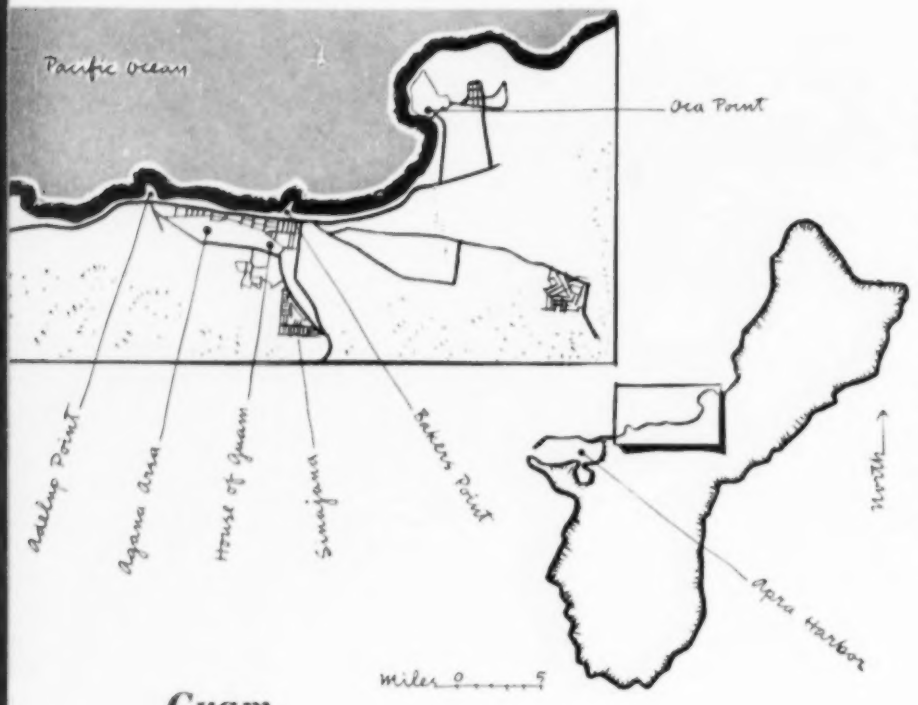
Perhaps because of this "refinement, but no aggressiveness," as one of the consultants put it, there was admiration for the sensitivity of some of the work presented. The *articulation* that a good designer searches for in a fully developed project was often found and admired. "Has a very consistent quality," was the comment about one of the churches, ". . . looks like an architect did it." Beautifully refined expression of a structure, as in Schweikher & Elting's project (pages 86-89) was felt to be significant in enough cases to indicate a trend away from the cute, the tricky, the "corny" and the "redwoody."

As summary, then, a surer exploitation of structure and technique, and a more refined and mature expression of these techniques, are probably 1953's outstanding design contribution. Added to this, though, must be another 1953 possibility: extension to wider areas of the planning and design ability that we have now, as in Neutra's and Alexander's Guam project that is shown on the following pages.

design/techniques 1953

PLANNING

The Island Territory of Guam—largest of the Marianas—lies midway between Japan and Australia, on the direct route from Bangkok and Manila to Honolulu and California. Spanish territory from Magellan's discovery in 1521 until it was acquired by the United States in 1898, the island has been subject to all the benefits and ills of Oceania's exploiters and developers. It was badly mauled by the Japanese and battered by the reoccupying Americans in the last war. Now the inhabitants of Guam are going to benefit from an over-all planning study made and being carried into detailed effect by Richard J. Neutra and Robert E. Alexander. As the following account of this exciting development indicates, the Architects have a deep respect for the people of Guam and serve diverse business, social, and legislative interests with equal dedication.



Map of Guam (left) indicates the size and shape of the island. The section at larger scale centers around the Agana area, and shows that town, contemplated adjacent planned communities such as that at Sinajana (pages 56 and 57), Adelupe Point (new school shown on page 60), and the free port area being developed at Apra Harbor (page 57).

The architects and planning consultants—Neutra and Alexander—give grateful credit to devoted staff work on this important project: to Dion Neutra, who directed the architectural section; to Arthur Parker and Jack Zehnder for engineering; to Sam Zisman for legislative matters, and to Frank Kelly, Richard Hunter, Frederick Reichl, Benno Fischer, and Don Ramos, as well as building- and zoning-code writers, draftsmen, modelmakers, statisticians, and experts and collaborators in various phases of the work.

Guam

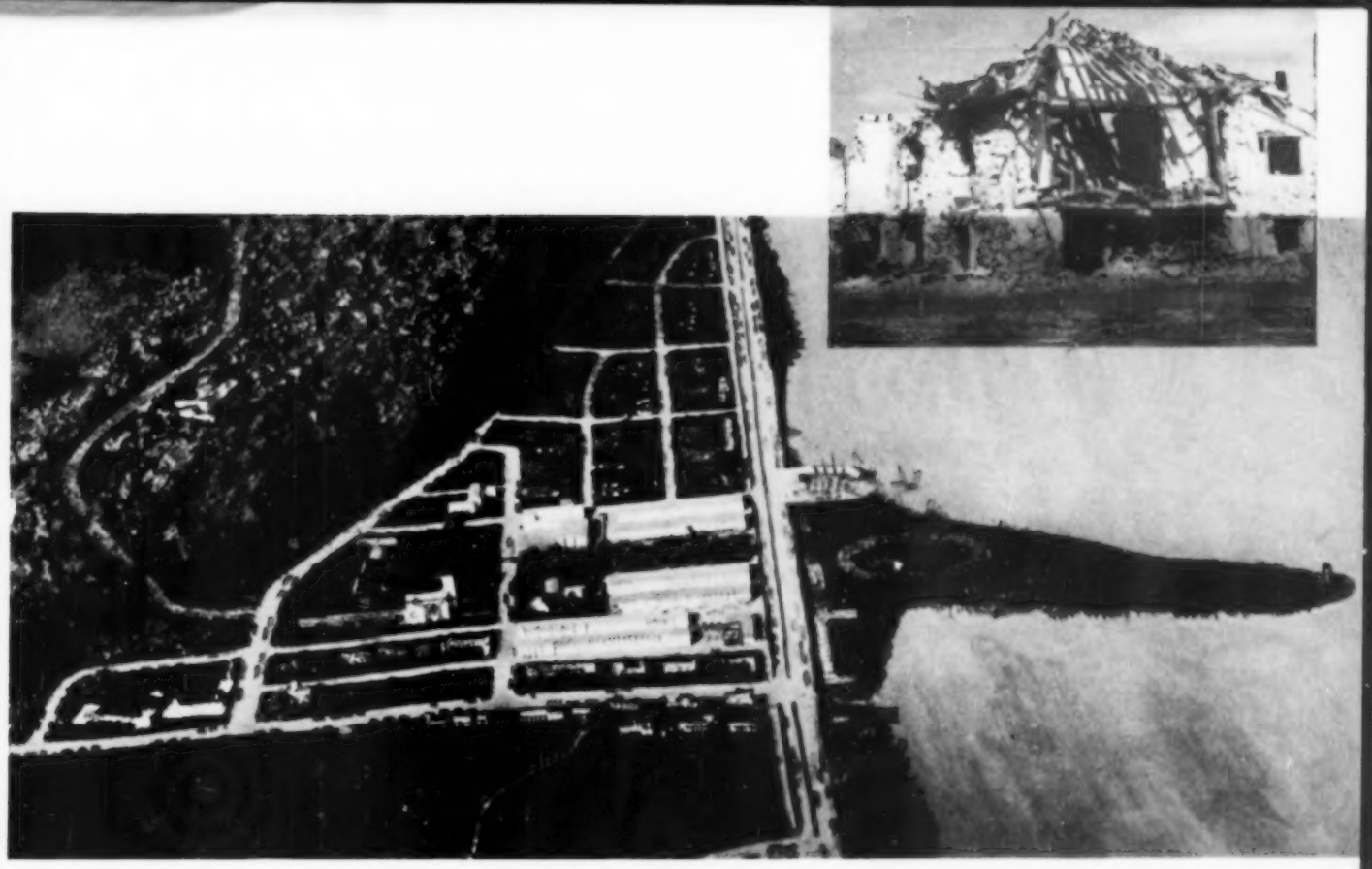
Richard J. Neutra and Robert E. Alexander, Architects and Planning Consultants

With a large part of the colonial world—the remnants of empires carved out by conquest and exploitation—in a state of rebellion, the task and the duty of the United States in its outlying territories becomes ever more clear. Planning for these peoples, such as the residents of Guam, must make possible a way of life which will spell always greater opportunities for independent growth and development, placing at their disposal all the knowledge and experience that planning technicians have accumulated, and all the technical knowledge and experience that American industry has developed, to plan complete communities (schools, industries, transportation, and recreation, all related to housing). Here, in a place like Guam, is the opportunity for us to demonstrate—in elementary but comprehensive terms—that the extension of our economy and technology, if properly planned, can benefit the peoples of less developed areas of the world.

It is fortunate that two men such as Richard Neutra and Robert Alexander, with their broad combined background of planning, housing, and architectural studies in various parts of the world, have been retained as architects and planning consultants to the civil community of Guam. As Neutra says, "Architects are practical and constructive socio-economists. Even the humblest practices teach architects to become co-ordinators, forseers, with a sense of the past which is prologue." By planning, Neutra and Alexander mean much more than mere neighborhood or even town or regional planning in a physical sense. It was only three years ago that Guam became a self-governing territory, when an act of Congress set up an elected legislature and a civil governor (with a hard-working cabinet of department heads). When the consultants, first called in on housing matters, recommended comprehensive planning as the first step, it was necessary to start with the appointment and strengthening of the Planning Board itself. A memorandum on "Broad Objectives," which the consultants prepared, discussed not only physical planning, but also steps "to facilitate the desirable development of all potential resources of the Island" (*see page 57*). A long-range program, without regard to priority, suggests all necessary steps from a study of soil, topography, and natural resources, to a public education program which would range from citizen education on planning matters to "accommodation of visitors in a badly needed hotel."

Capital improvement programs and democratic procedures for compiling and submitting them have been studied by the consultants. And, since the physical as well as the socio-industrial problems must take almost a new start after war destruction, it was necessary to develop a basic building code, a zoning law, and a subdivision law to control construction in the urban area at once. (The consultants plan to simplify and illustrate vital principles involved for use in villages and even as a school text.) When one considers that from these basic beginnings the work of the consultants concerns all the stages of land-use study, population analyses, transportation, road and utility mapping, health and education programming, to the detailed design of individual buildings which are now under construction, the scope and the challenge of the task can be appreciated.

The map (*above*) indicates the shape and size of the Island of Guam—it is only 30 miles long, with an average width of eight miles (five miles at the narrow center). The southerly portion is of vol-



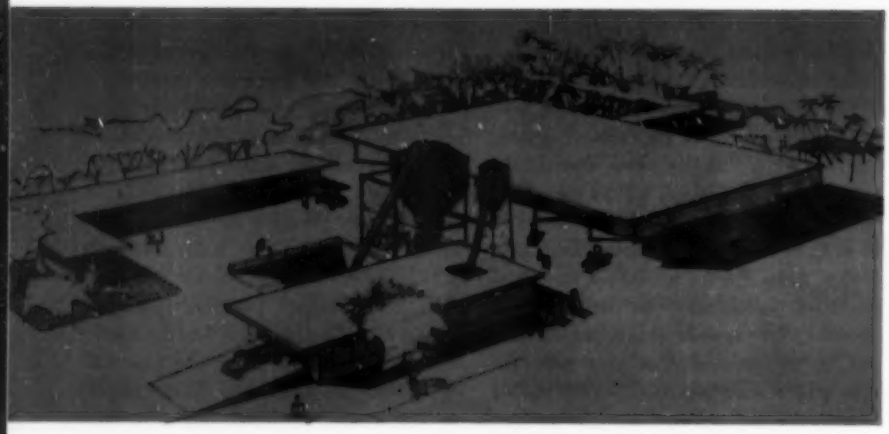
canic origin, and is quite mountainous; the north is a coral plateau. Beaches surround it; it is rich in luxuriant vegetation in some parts and so shallow of soil in others that deep plowing is impossible. Capable of supporting a population of possibly 150,000, it is now spotted by a few towns, the largest of which—Agana—dropped from more than 10,000 inhabitants before the war to 800 in 1950. Buildings and entire villages were wiped out by the Japanese occupation and the American reoccupation, and the population was scattered. A road network exists, and natural harbor facilities at Apra provide the basis for a port development near Agana (*see page 57*).

The fact that there are military establishments on the island has had interesting effects on the planning. Largely for military reasons, impressive highways were built, inviting motorization. The architect-consultants report that the Guamanians have invested heavily in automobiles—"many a family seems to have a jeep and a Dodge; frequently a truck in addition to that. At the same time people have been living in accommodations that do not measure up to their needs by mainland standards." The reason for this, very simply, has been that materials and labor for building have not been available, and a home is not the imported package that a car is. For the military construction, Philippine contract labor has been imported, housed in compounds. Since automobiles and highways are valid determinants—and since a good part of the population for some time will be employed by the military establishments—new neighborhoods have been located in relation to the present road and utility network.

The rendering (*above*) shows the proposed development of the town of Agana. The resurrected capital, now that the island has been motorized, will be more than ever the commercial center. Shops and parking areas are indicated adjacent to a central mall. On the hillside is the social center of Guam, near the home of the governor (*for details see pages 62 and 63*). A recreational area very near the town center is made possible by the jutting peninsula of Baker Point. Such long-range studies are still in a formative stage.

While the master planning is proceeding, and now that a resident planning office has been established in the department of land management, some immediate construction is going right ahead. The material on the following pages indicates study and thinking, which must be carried to rather specific points even in the early study stages, so that as authorizations are granted, the architects will be prepared to go into the working drawing stages. At the present time, some of the school plants and certain housing projects are at that ready-to-go-ahead point, and the harbor installations, the social center, and Adelupe School (*see pages 60 and 61*) are under construction.

The principal point that the architect-consultants emphasize—in discussing the project and in their memoranda to the administration and the legislature—is the need for basic planning studies as a source for dynamic rather than static final solutions of problems which are obviously fluid. Neighborhood planning and school planning, for instance, are based on population studies which attempt to assess the *dynamics* of the people in addition to easily-obtainable *static* statistics. This approach, together with the ability to solve specific projects as construction is authorized, constitute the problem and the consultants' contribution.

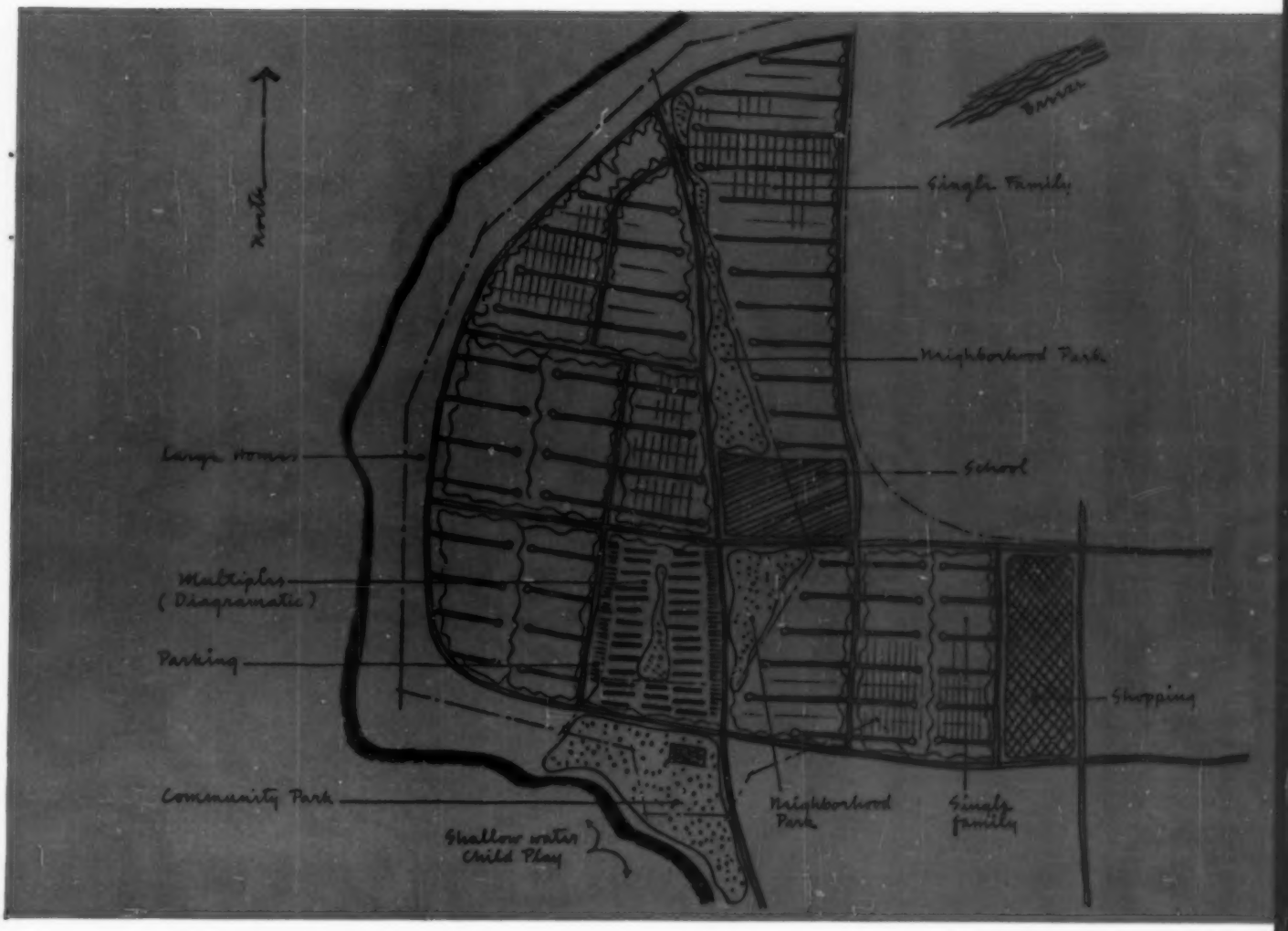


Proposal for a concrete-block manufacturing plant. Raw materials, fed in at left, go to forming machines and then to curing shed.

Guam Neighborhoods

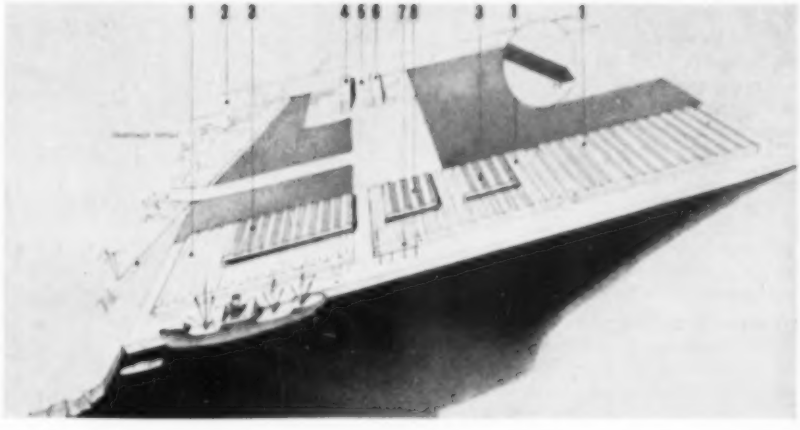
Development of new communities on Guam is complicated by the existing military establishments, by jungle growth, by existing roads, and by the present location of the scattered population. Sinajana (*above*) is now largely a community of navy-built huts which occupants have often skillfully and colorfully improved. Most schools are still inadequately housed — but water is available and there is a sketchy "business" section. Replanning will organize the community into residential neighborhoods, with school, shopping and recreation areas.

Even before the new communities, however, certain improvements must be made to advance the building industry itself. High on the priority list is the commercial port at Apra Harbor (*rendering at right*).

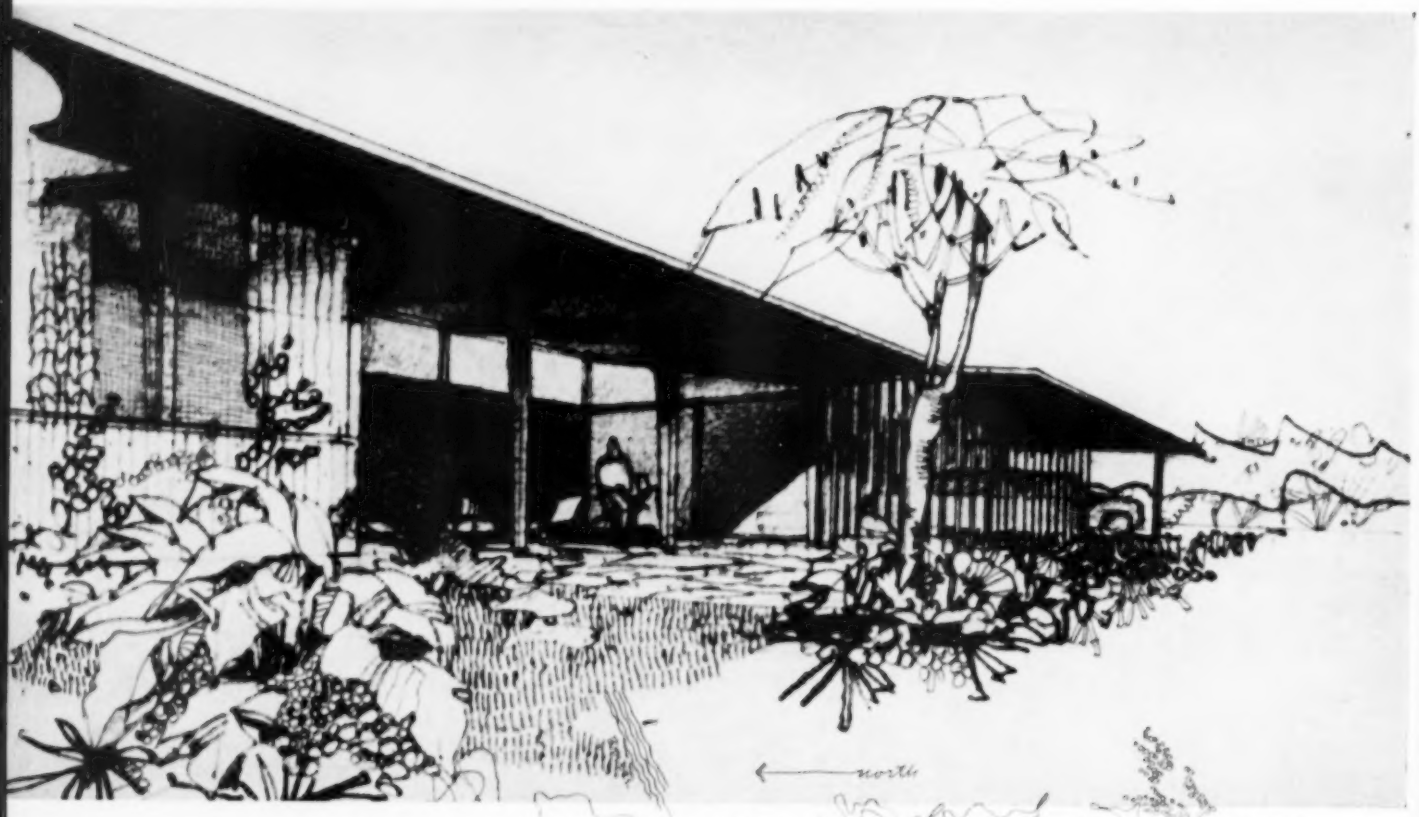


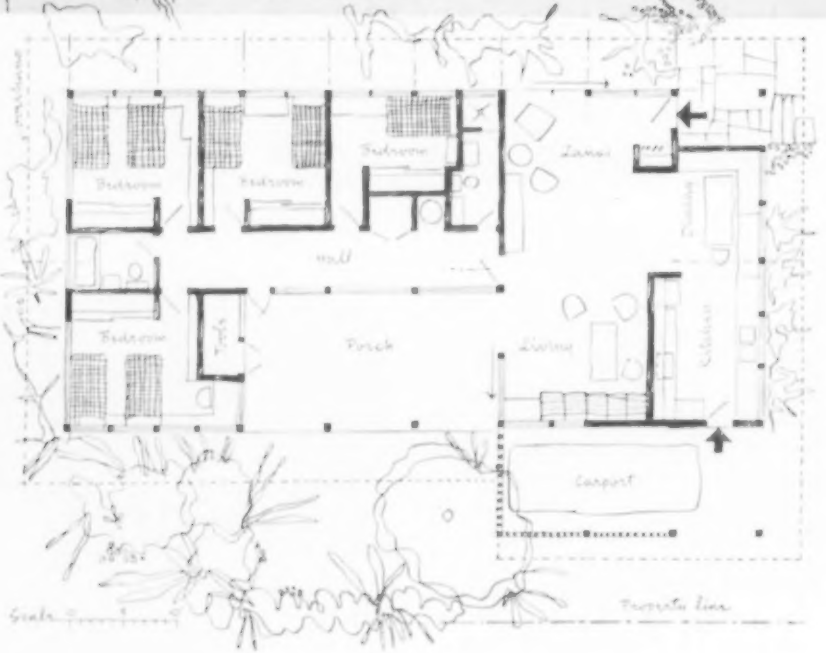
Certain commercial possibilities may be realized only when the free port is ready to handle merchandise; the very building program waits on the ability to handle prefabricated structural members. The consultants point out that this is as much a part of the planning problem as the design of the buildings of which they will become a part.

Equally a part of planning is the development of natural resources, such as fishing, canning, and shark processing, and new industries such as the manufacture of building materials. For example, Neutra and Alexander have analyzed the use of concrete block and have proposed construction of block-making plants, such as the one pictured (*left*).



Proposed port at Apra Harbor. 1. Future Development. 2. Future access road. 3. New warehouse. 4. Future office building. 5. Main entrance. 6. New maintenance and repair building. 7. Present temporary transit shed. 8. Present warehouse.





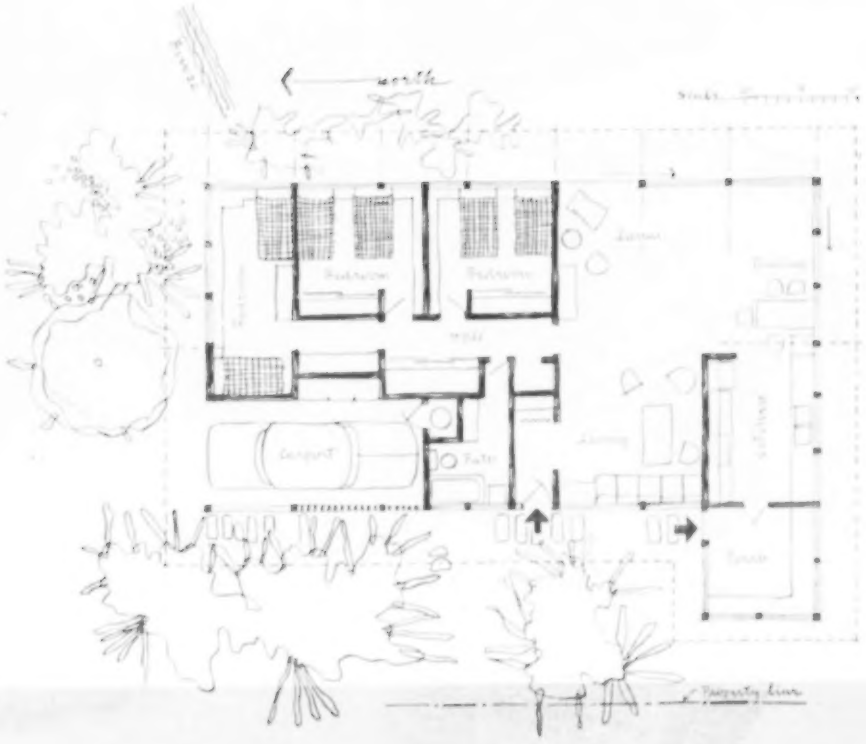
Guam Houses

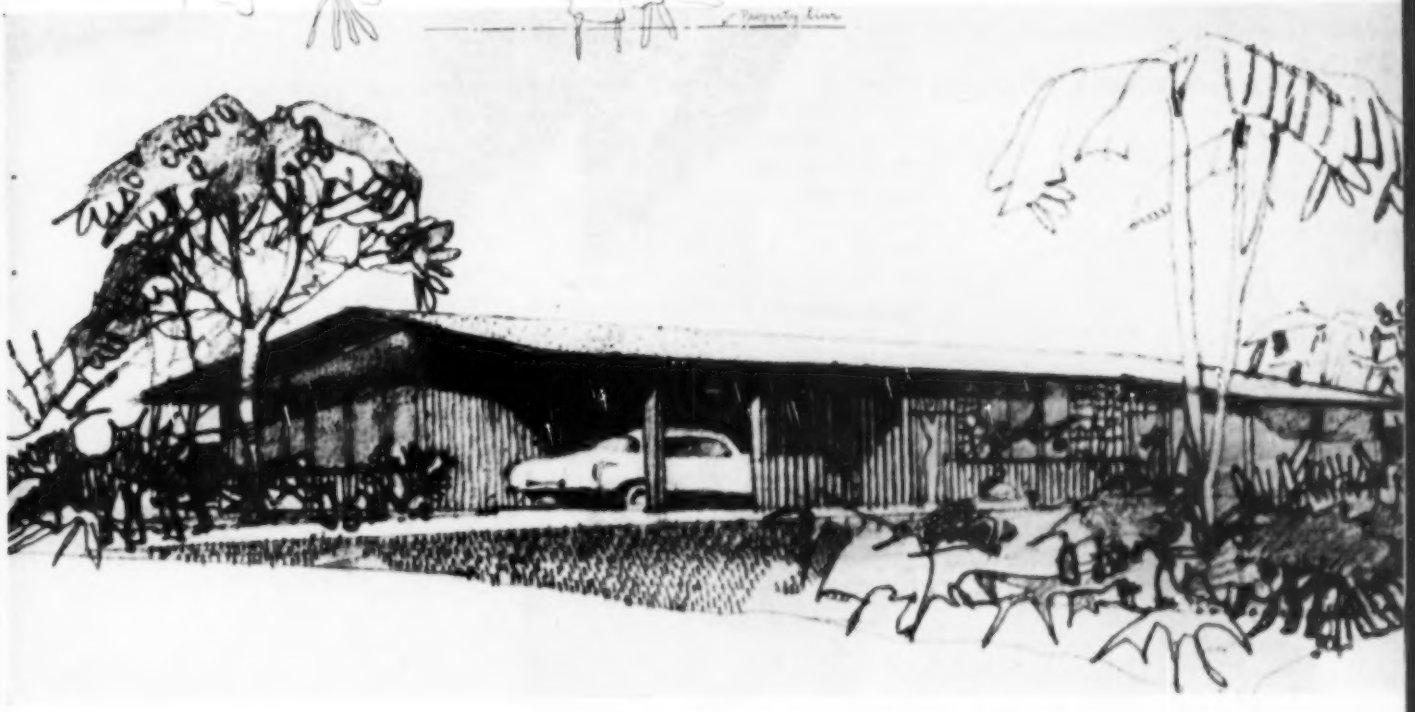
On these two pages are shown some of the many studies that have been made, and are still being made, of housing to suit the needs of the climate of Guam and the living habits of the Guamanians. Like the climate, none of the concepts at the moment is frozen; thought is being given to such other schemes as houses on stilts—a tropical tradition long before its more stylistic modern adaptation in other parts of the world.

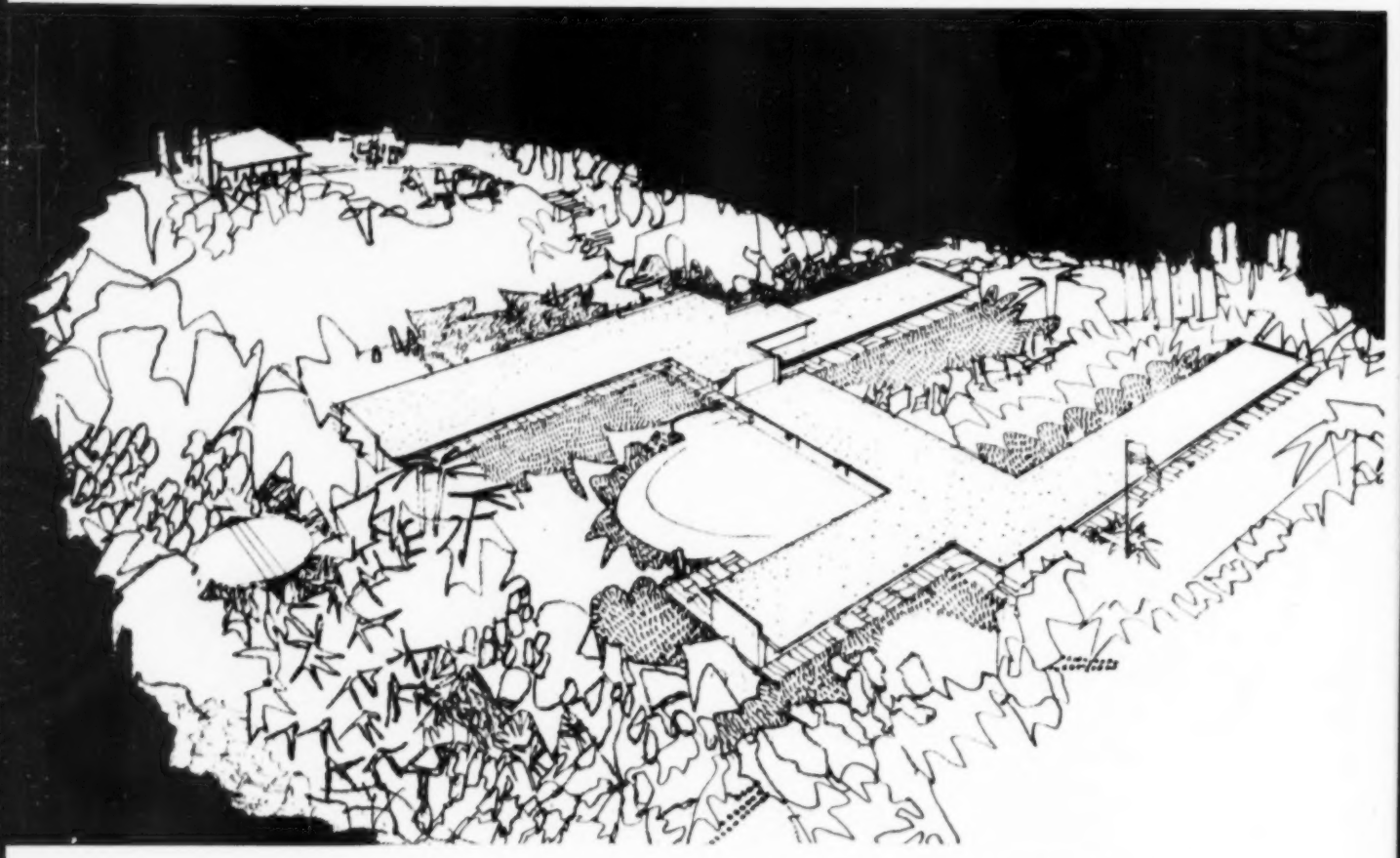
House planning is influenced by two important factors—the steadily prevailing northeasterly breezes, and sudden and frequent rainsqualls. Openness, little partitioning, wide porch and roof overhangs, and an orientation toward the northeast seem the solutions.

Cement materials and reinforced-concrete construction seem logical today for Guam housing—both because these materials can be used by the labor available on the island; and because the people of Guam are psychologically tired of the temporary war structures they associate with wood, and the deteriorated and partially abandoned Quonset huts they see as the disadvantages of exposed metal in that climate.

The architect-planners believe that prefabrication will play its role, ultimately, in Guam building methods. Prefabricated wide-span laminated frames (designed for cargo handling, transit on the island, and storage) may well be utilized in future construction.





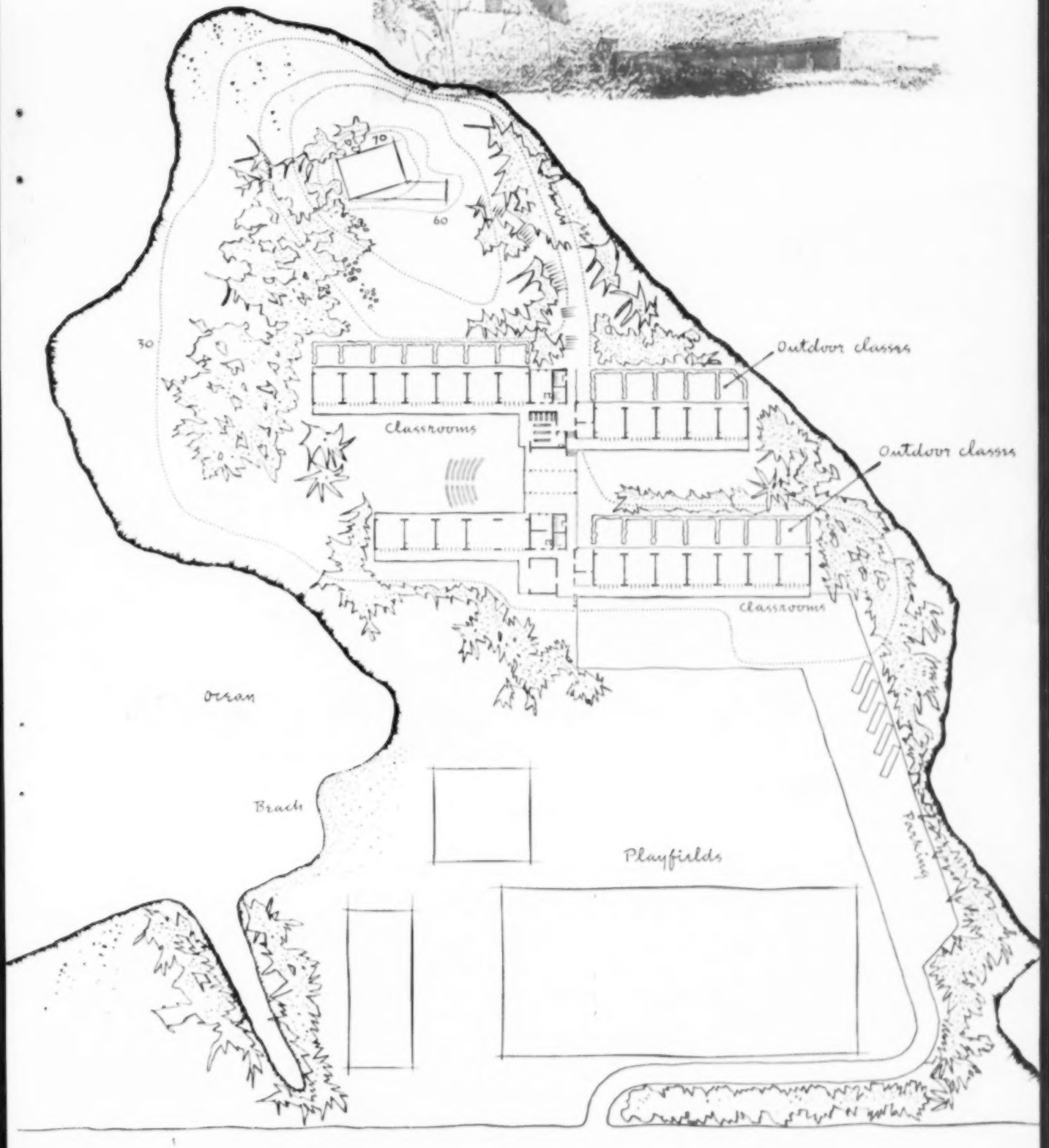


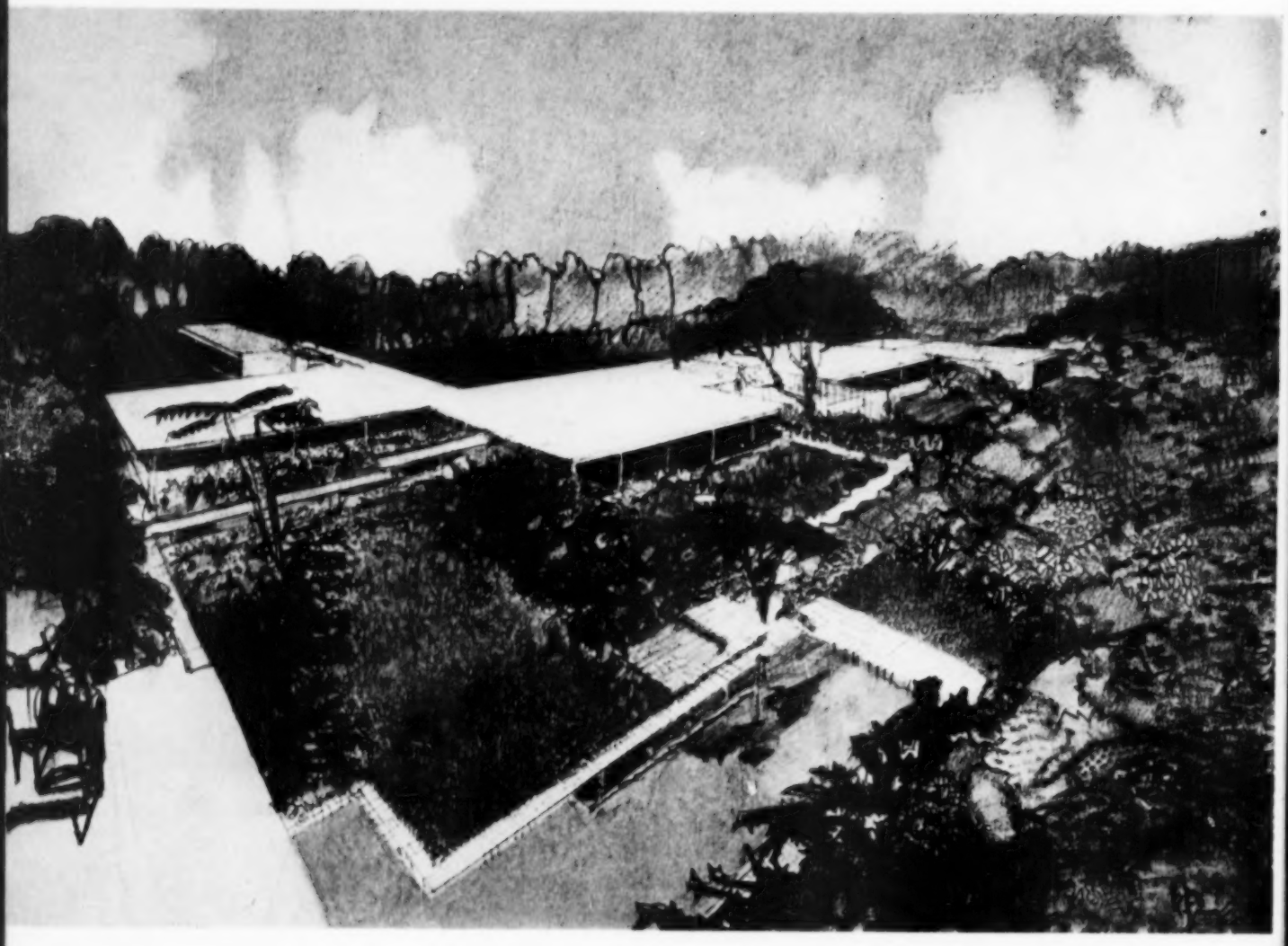
Guam Schools

The school with classrooms extending into open-air instructional areas is a tropical tradition; Neutra points out that "teaching and learning have been carried on under a mango tree long before the Nordics had their chance of sitting comfortably at the feet of great teachers." It might also be pointed out that Architect-Planner Neutra originally translated this tradition into semi-outdoor schools for California, and later carried on the studies in Puerto Rico, before this latest tropical-education planning problem.

In Guam, the needed continual natural ventilation, the frequent rainstorm, and the occasional typhoon, all influence school planning. Best orientation, the architects believe, is a turn to the northeast, to catch the trade winds blowing constantly from that direction. Swivelling or horizontally-folding doors, on north and south, may at times have to be closed. Since typhoons are now well-heralded in advance, enclosure panels stored against their use seem adequate protection.

The Adelupe School (*shown on these pages*) is now under construction. It is conceived as a community social and recreational center as well as a school. Planning is as open as possible, to induce through ventilation. Since coral rock excavation is difficult, the school is staggered on three levels to fit the site.

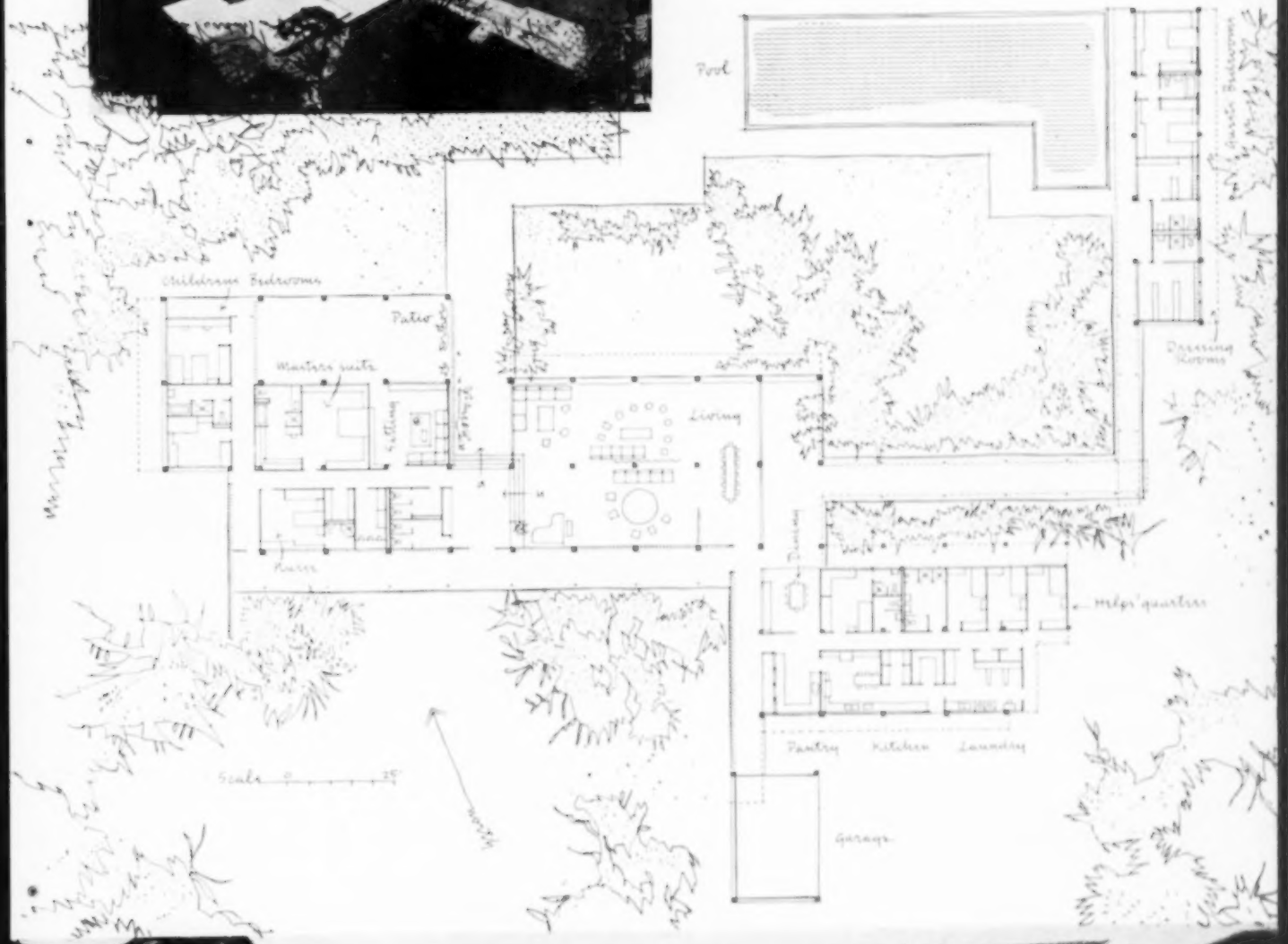

70
60
30
Outdoor classes
Classrooms
Outdoor classes
Classrooms
Ocean
Beach
Playfields
Parking

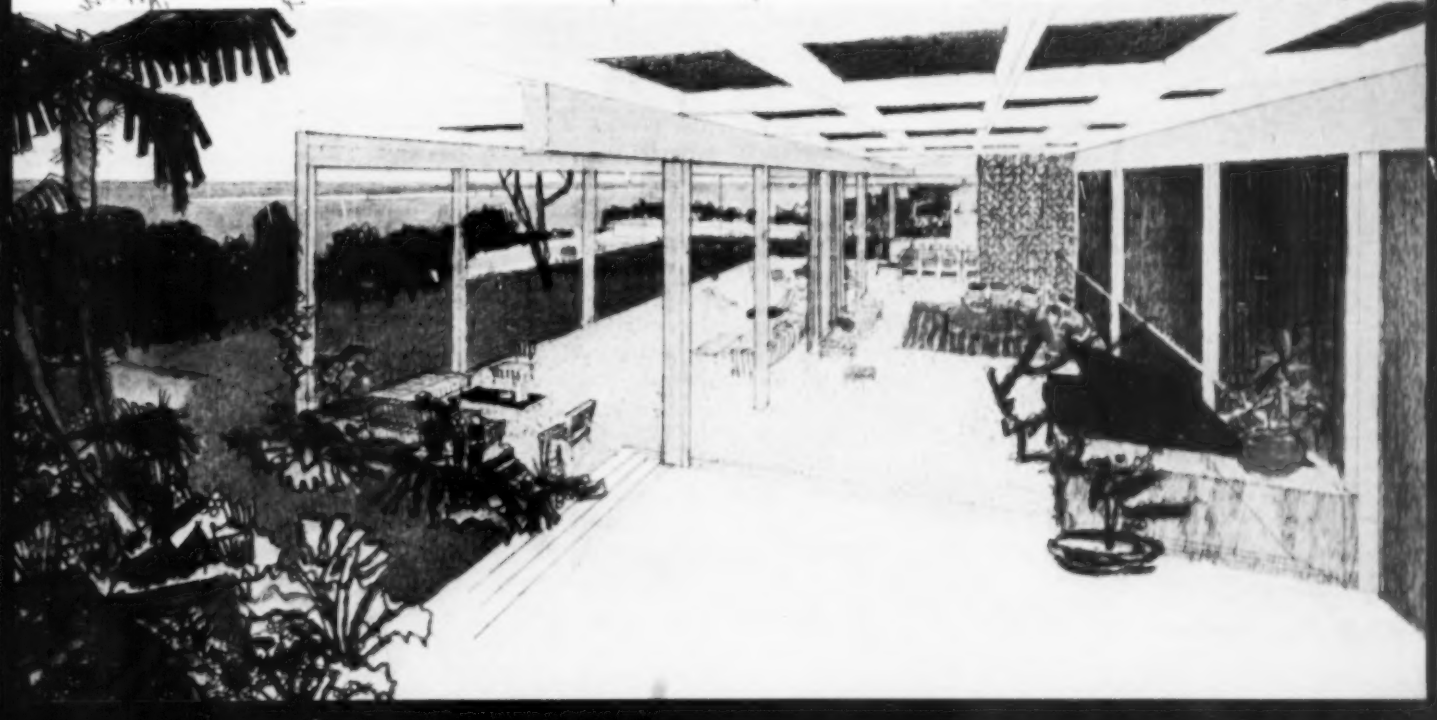


House of Guam

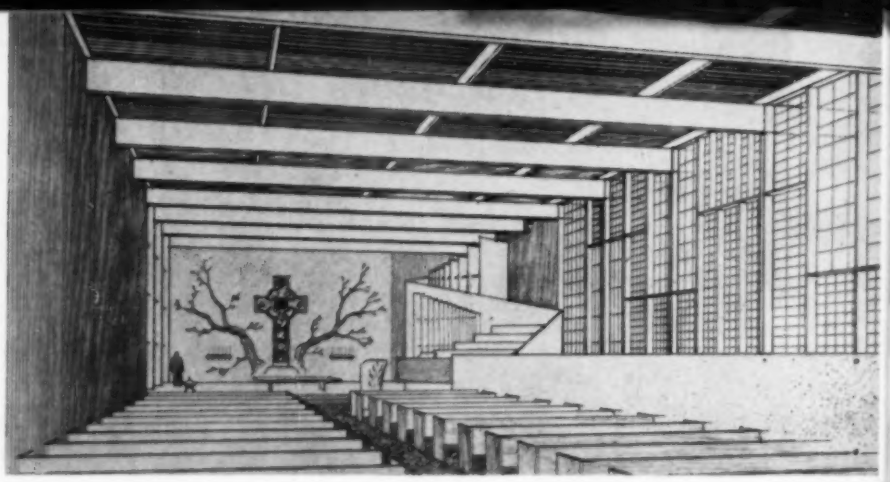
Shown on these pages are studies for "The House of the People of Guam"—a totally new concept for a Government House, as it used to be found in a "colony." As Richard Neutra expresses it, "A Governor is no longer an aloof ruler surrounded by military splendor and palatial settings . . . he is no more than the highest-ranking servant of the people." His house, then, "is nothing sumptuous, but should have the privacy of any decent middle-class dwelling." So the House of Guam is conceived as a place in which the residents of Guam can take pride, in their own right. Social facilities are apart from the Governor's residence—a social center flowing out onto the grounds, for representative gatherings and for the entertainment of distinguished visitors. A third element of the concept is a pair of guest rooms, where certain visitors may be offered "the hospitality of the people of Guam." They are detached, but within easy serving distance.

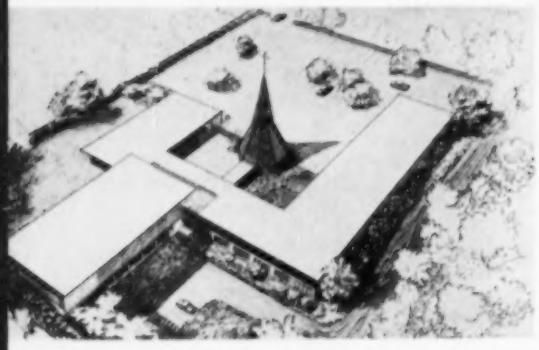
Guam House is a symbol of the new concepts of democratic planning, recognizing the importance of traditions where they have been based on local climatic, social, or emotional needs. The total Guam planning concept is thus rooted—in valid tradition translated in modern terms.

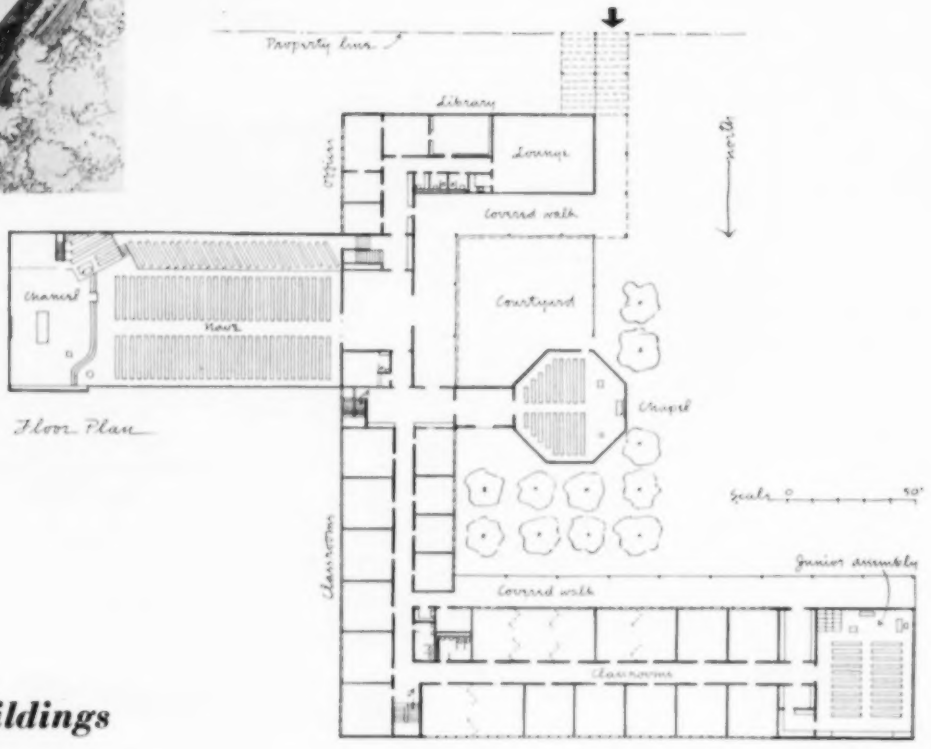

Pool
Children's Bedrooms
Patio
Master's suite
Living
Dining
Maid's quarters
Pantry
Kitchen
Laundry
Garage



First Presbyterian Church, Vancouver, Washington: Stewart & Richardson, Architects. A lower floor includes (under the main church) a large parish hall, a choir practice room, youth activity room, five additional classrooms, caretaker's room, and boiler room. Estimated cost: $350,000.





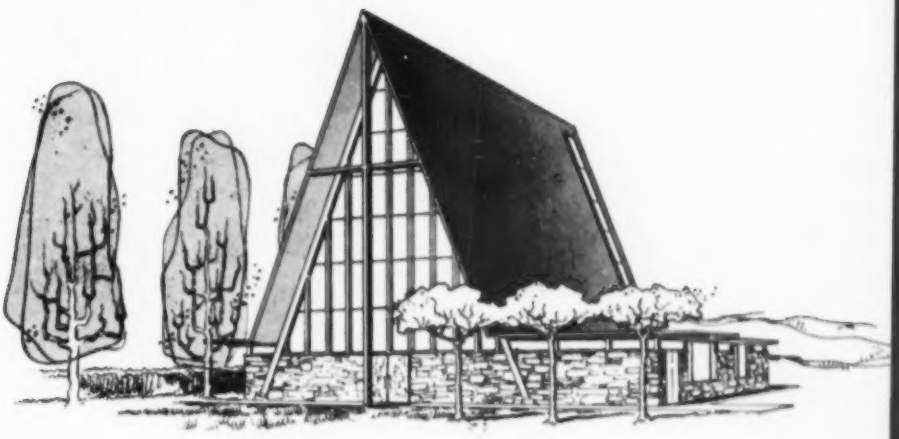


Religious Buildings

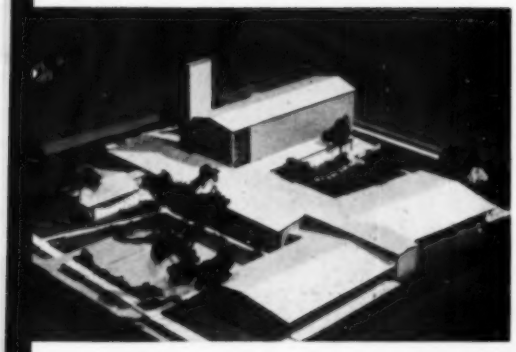
No building type is more surrounded with "given conditions" than the House of Worship. Apart from the strong sentiment that exists among pious conservatives, an invariable design requirement is to house prescribed ritual forms. Anything too extraordinary in plan simply misses the basic problem. This does not mean, however, that churches and temples cannot employ advanced structural methods and new materials—and take advantage of the new esthetic possibilities that these permit—so long as the desired inspiration, dignity (perhaps mysticism) are maintained.

One now finds not only new interpretations of the time-honored church, but also inclusion of many new facilities that echo modern religion's determination to play an ever more important role in community life. Esthetically—as the few examples shown here attest—new forms are being developed that link technical resourcefulness with spiritual need.

This year, as in 1952, religious structures account for the smallest dollar volume of any building category reported. Yet they represent 5% of the total this year, as compared to 1½% last year. And in the Pacific Northwest states, the category accounts for an impressive 14%.

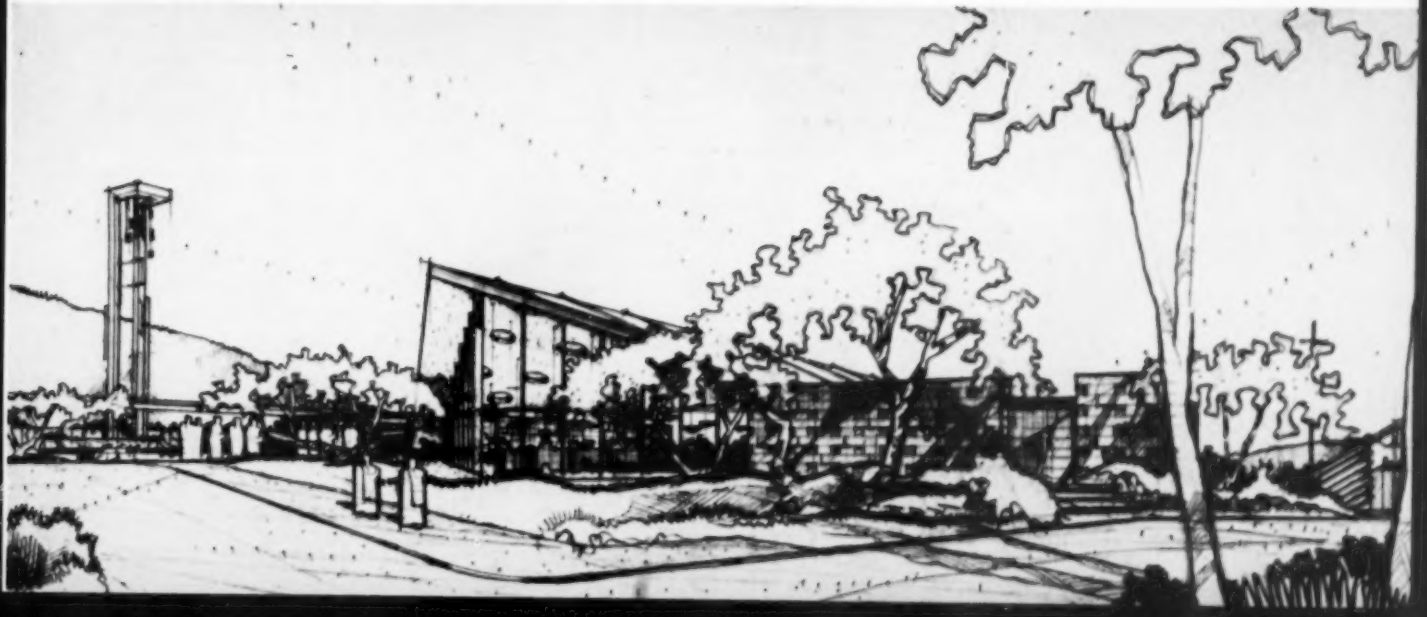


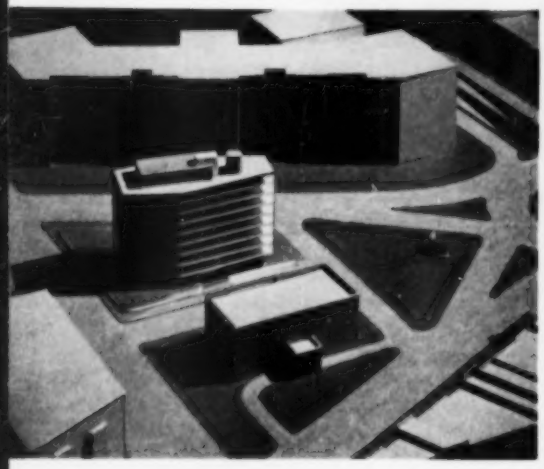
Lutheran Church of the Atonement, Florissant, Missouri: Harris Armstrong, Architect. To be built for a newly formed group, this church was praised by the Jury for its lack of affectation. Movable chairs are to be used instead of pews, and when the room is serving purposes other than worship, draperies will close off the chancel area. Cost estimate: $65,000.

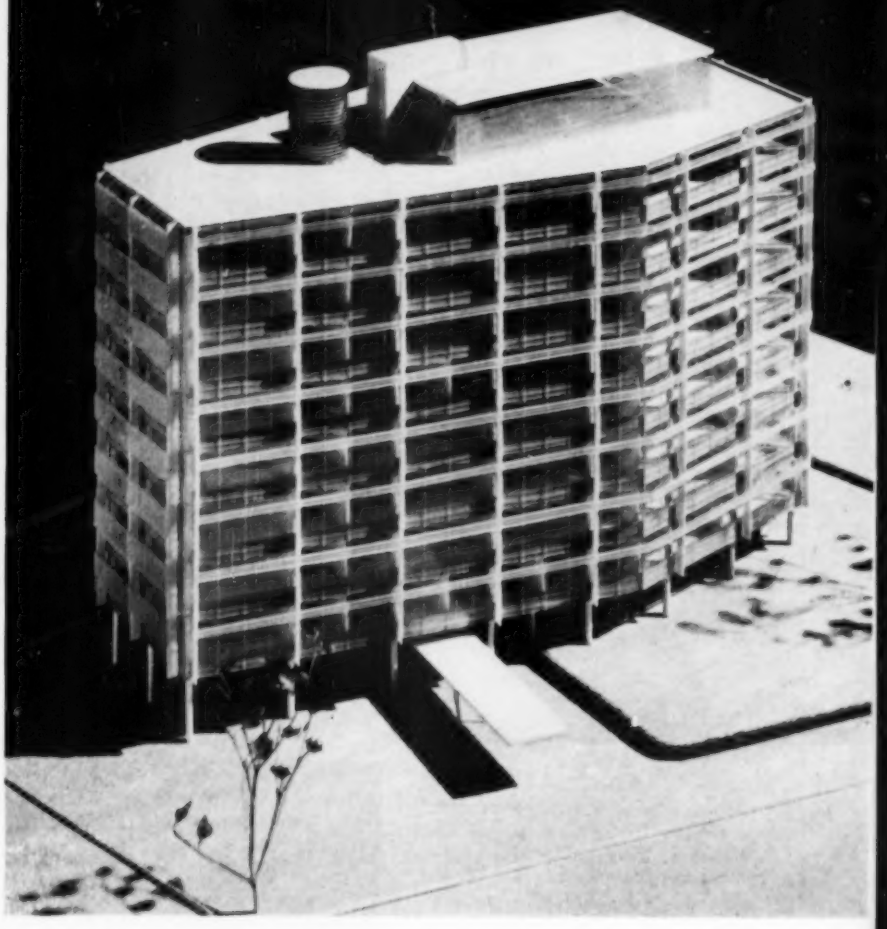


Portland Avenue Christian Church (above and at right), *Minneapolis, Minnesota: Thorshov & Cerny, Inc., Architects; Newton Griffith, in charge. In addition to the main church, there is a chapel, school rooms, and social meeting halls. Front of main church is to be of large panels of cast terrazzo-like material, with colored glass insets in the round apertures.*

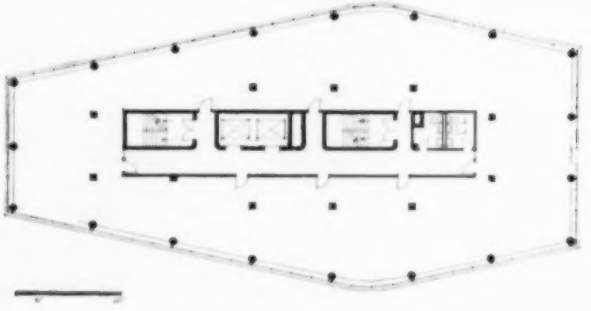
St. Matthew's Episcopal Church, Pacific Palisades, California: A. Quincy Jones, Jr., and Frederick E. Emmons, Architects. The plan of the nave area is a perfect square, with the structure of the pitched roof coming directly down to the ground at two opposite points, where it will be firmly anchored.







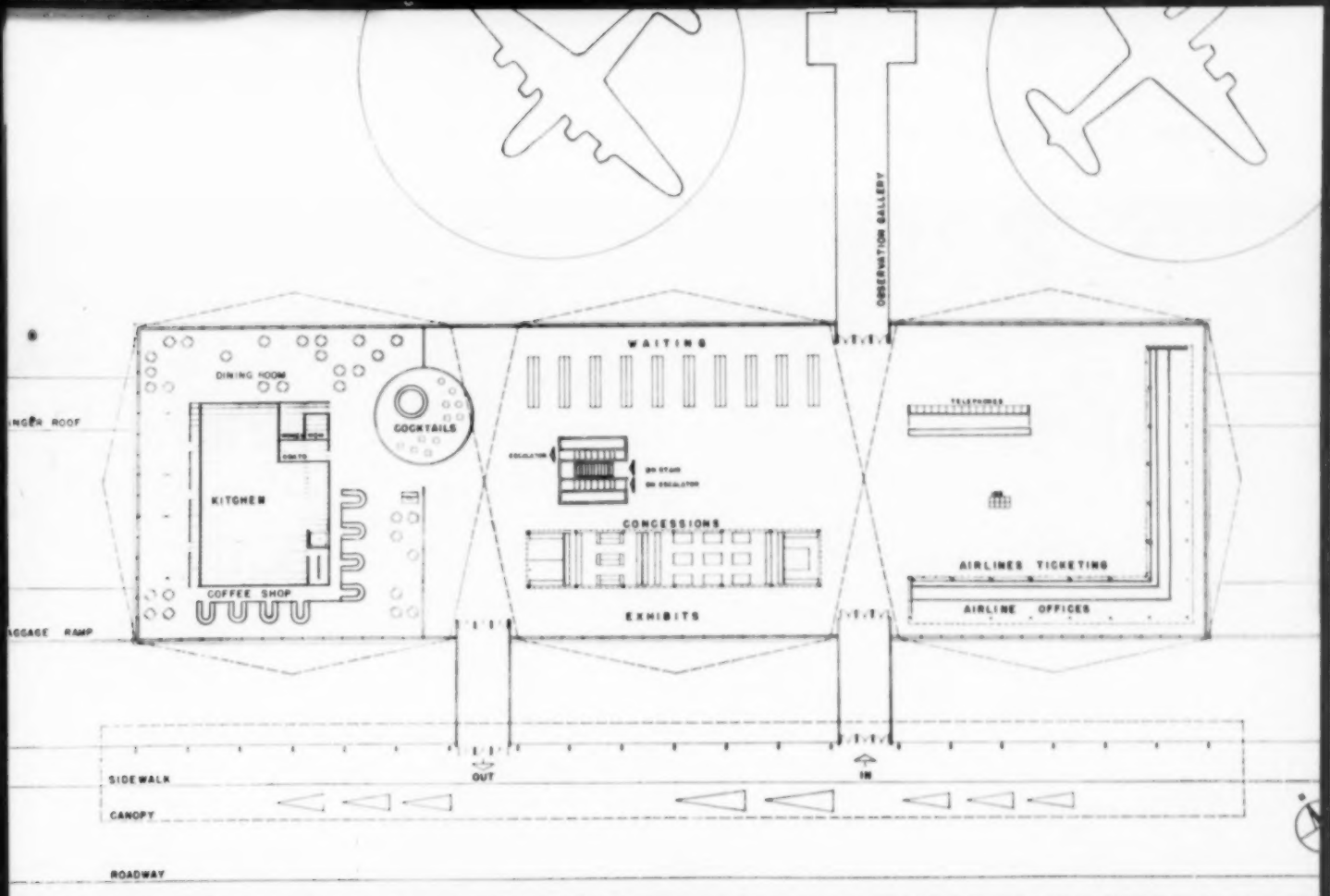
Headquarters Building, American Association for the Advancement of Science, Washington, D. C.: The Architects Collaborative, Architects. The Association plans to have lounge and conference rooms on the ground floor, with offices above; some of the upper-floor space may be leased to similar institutions. The building will have an underground parking garage. The concrete structure employs a modified "slab band" system.

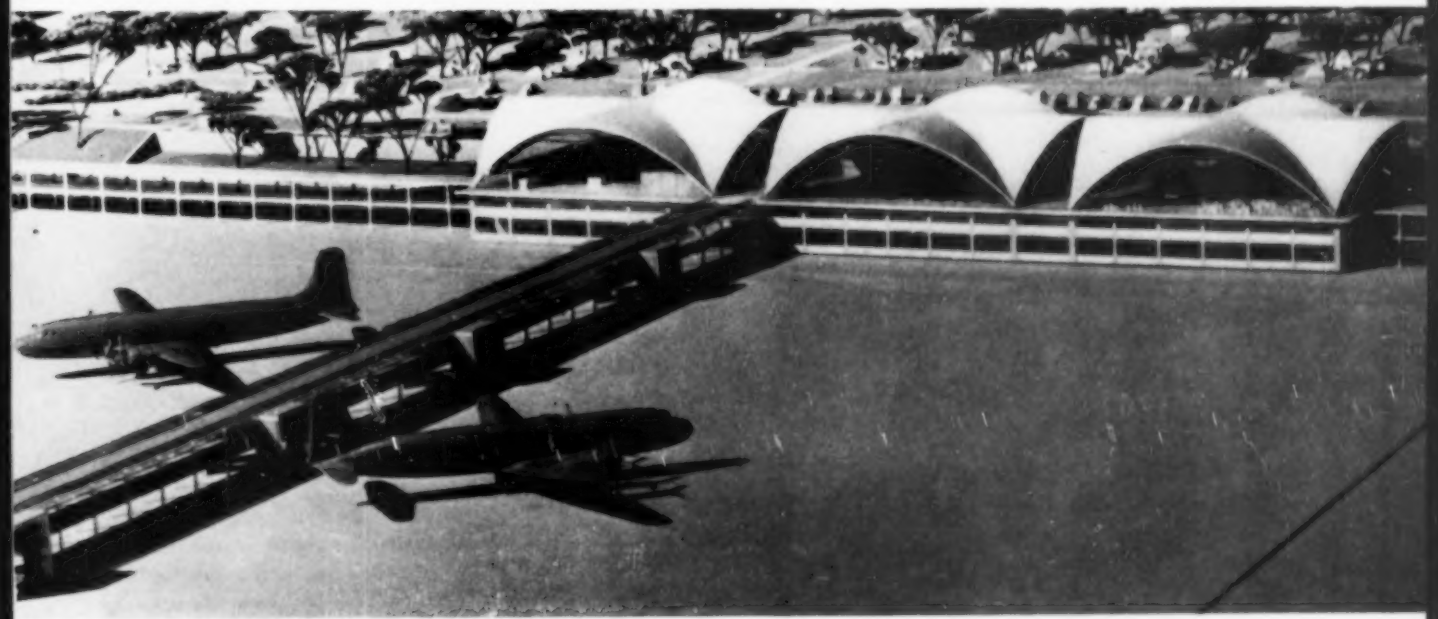


Public-Use Structures

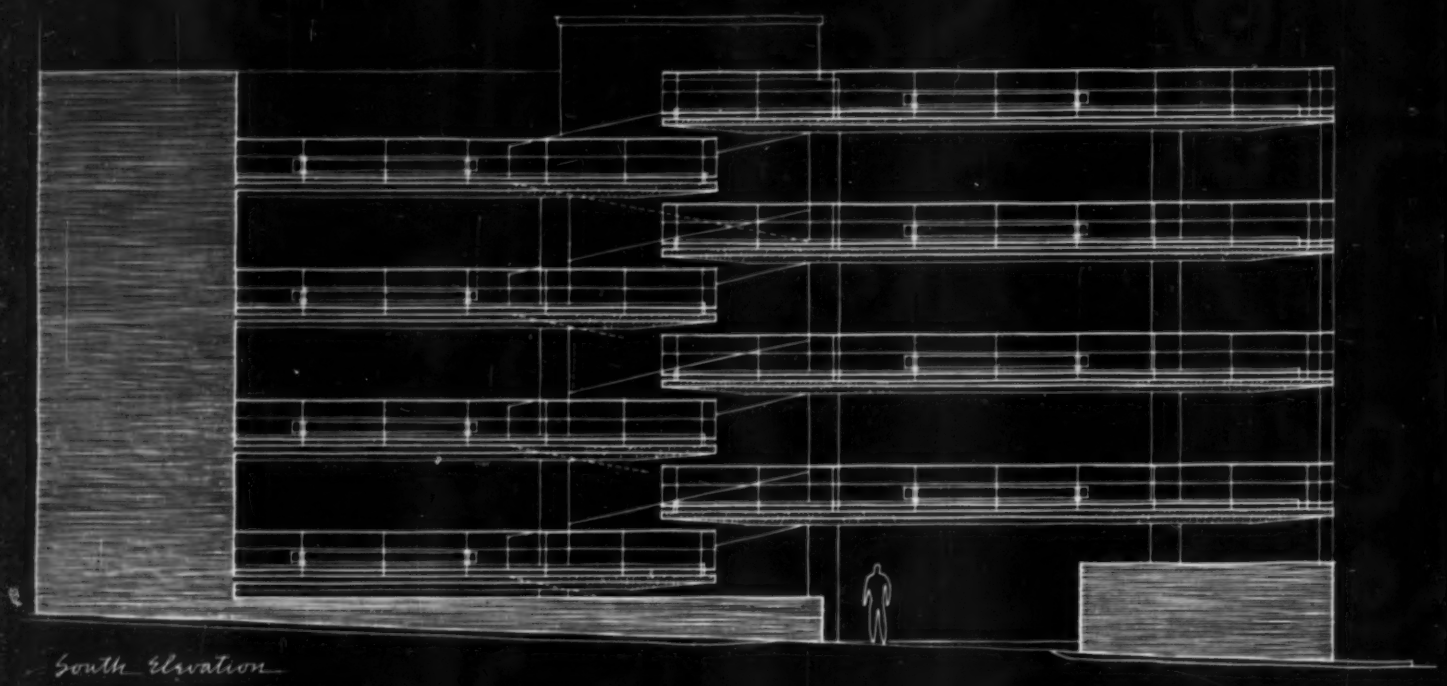
It may be a significant commentary on our times that of the buildings architects reported as likely to go ahead this year, the smallest estimated dollar volumes are for religious structures and buildings for public use. We shall be armed to the teeth (even incomplete figures in the defense category indicate); we shall have many more schools; we shall have considerable housing of various sorts; and our commerce and industry will flourish. We shall not, however, be overly concerned with provisions for our health; our religious building needs will be very meagerly met; and our public services will fare only slightly better. Of the total anticipated construction, excluding TVA's $900 million, only 7% seems destined for public-use structures.

Buildings for public or quasi-public use demand design qualities that differentiate them from all other building types. For, in addition to functioning properly, they must stand as symbols of official or community importance. In former times, this aspect was contrived with mere impressiveness; a public structure was frequently—and approvingly—referred to as "imposing." As, indeed, it was, and often pompous. Today, the best of them—as witness the two projects illustrated here—possess, rather, the qualities of efficiency, cleanliness, and confidence.





Terminal Building, Lambert-St. Louis Municipal Airport, St. Louis, Missouri: Hellmuth, Yamasaki & Leinweber, Architects. Estimated cost: $4,000,000. Passengers will arrive at the top level (plan, above) and come down by moving stairways to the finger level and thus proceed under cover almost to the door of the plane. At the apron level are trucking and service facilities and space for handling air mail and express.



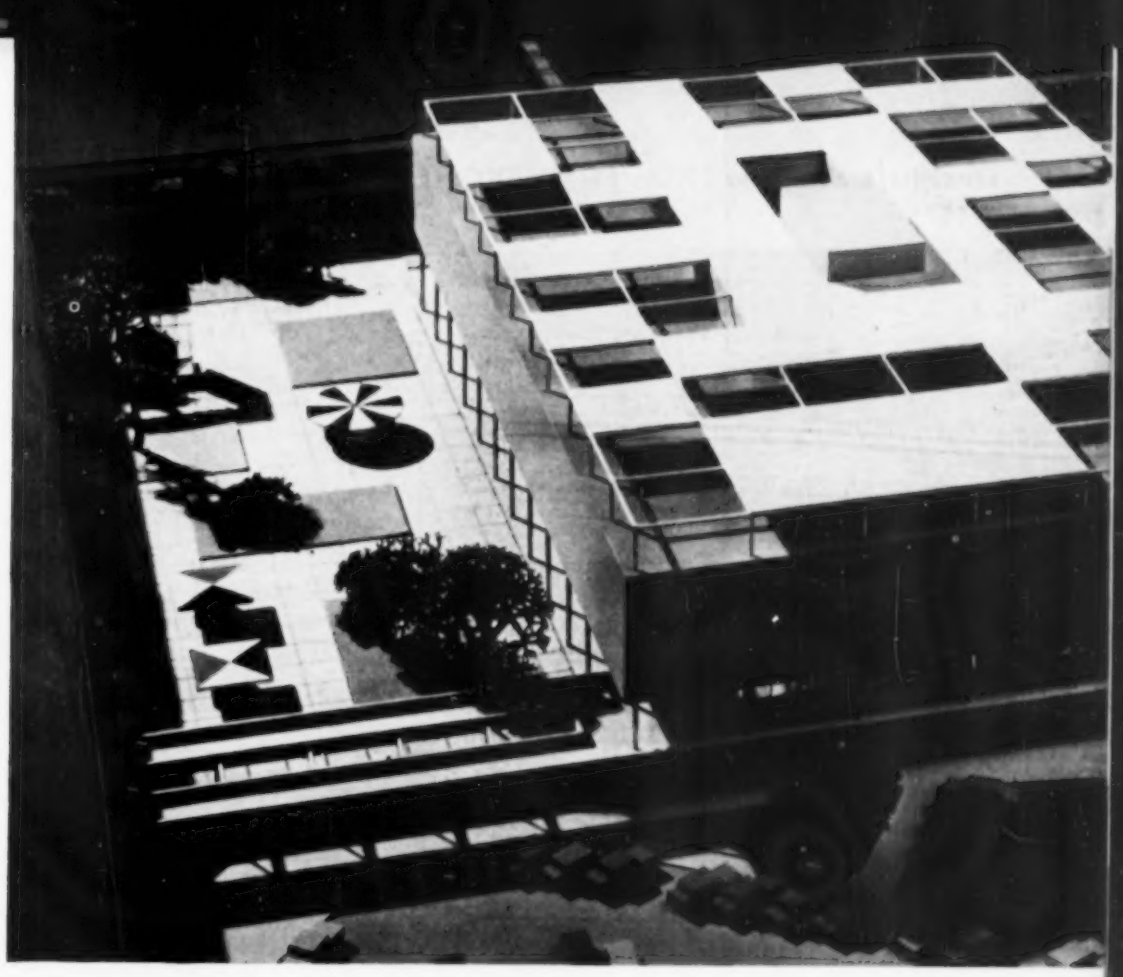
Williams Parking Deck, Atlanta, Georgia: Aeck Associates, Architects. To make efficient use of a 90' x 99' lot, a one-way ramp system is employed, with split levels, overlapping each other 4'-1½". Capacity: 192 cars. Structure is a beamless reinforced concrete flat plate, with each level cantilevered on all four sides.

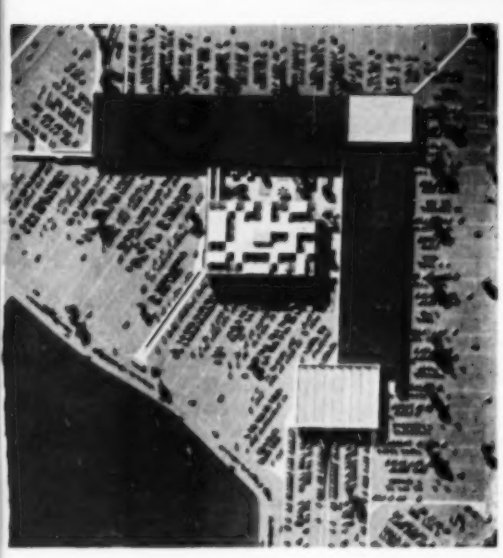
Commercial Buildings

Commercial buildings represented the fourth largest category reported—18% of the total of anticipated architectural work for 1953. The Jury did a good deal of speculating about appropriate expression in buildings for commercial use. Primarily, a job designed for dollar return must function acceptably, be resourceful in use of space, and economical in maintenance. But the questions for which there were no final answers were the extent to which the billboard or "come on" aspect was essential, and whether or not this could be assayed from an architectural standpoint.

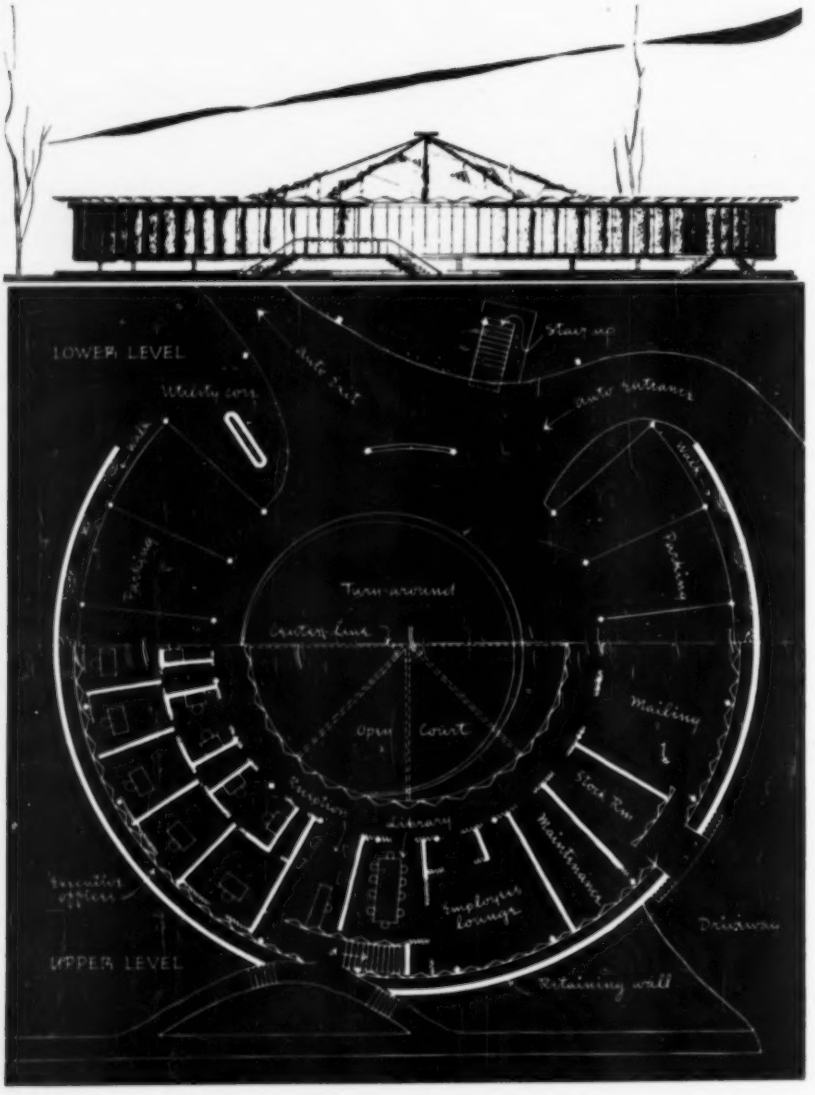
Clearly, a basic function of the commercial building *is* to lure customers; and clearly, this end result could be achieved by the most blatant forms of shouting in bright lights and other eye-catchers. Yet the buildings shown in this section all possess a definite public-relations quality, and in each instance this has been achieved by architectural means. For example, the Petroleum Association Building for Tulsa (page 70) is sure to command attention by the mere fact that it is a round structure. The shopping center for Oakland, California (page 69) lures the eye—and the customer—through a variety of means: size; color; bold, geometric pattern, etc.

A tentative conclusion would indicate that architecture alone can be enough to satisfy this requirement; that if extraneous means have to be employed to do the job, the original design was something less than wholly successful.





Bay-Fair Regional Shopping Center, Oakland, California: Victor Gruen, Architect; Larry Smith & Company, Economic Consultants. "'Way above all the other shopping centers submitted," commented the Jury. Estimated cost: $10,000,000. Located in the center of parking areas on the 45-acre site, the L-shaped building layout, with large department store forming a pedestrian shopping court in the angle, is organized on two selling levels. A subterranean truck tunnel serves all rental spaces.



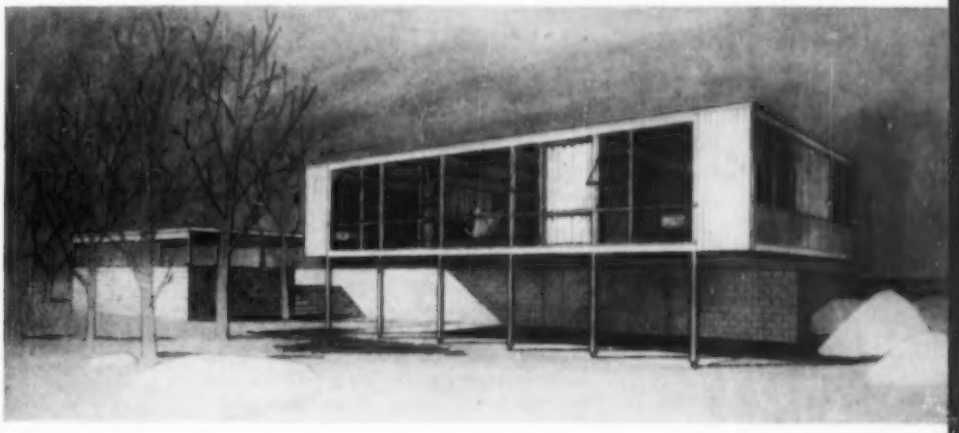
Laboratory and Office Building for the Magnet Cove Barium Company (above): *Houston, Texas. George Pierce & Abel B. Pierce, Architects; Richard S. Colley and Ford & Rogers, Consulting Architects. The west-facing building has most principal offices and labs in two, parallel, east-west wings, both planned for future expansion. Structure uses lift-slab technique, with cantilevers forming automatic, economical sun control.*

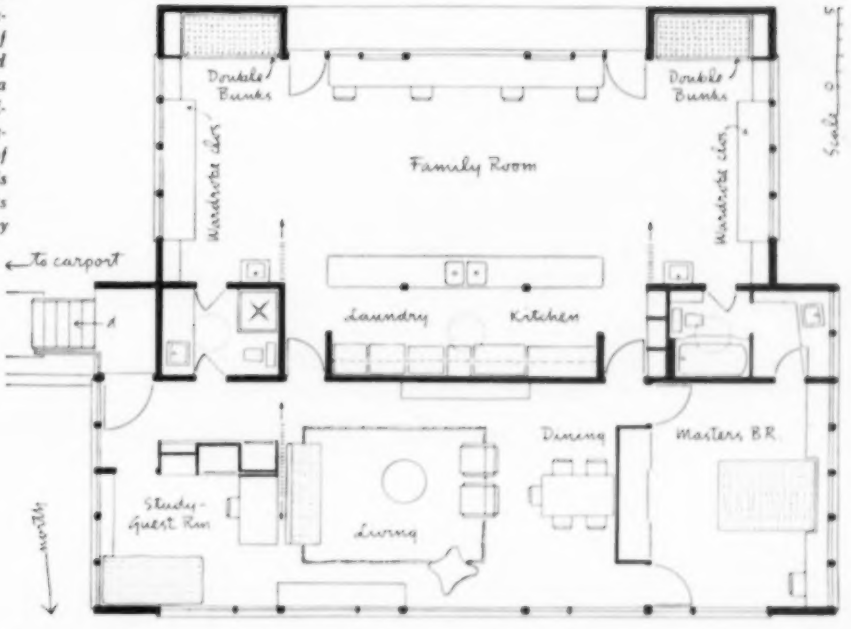
National Headquarters Building, Independent Petroleum Association of America: Tulsa, Oklahoma. Robert E. Buchner, Architect; A. Blaine Imel, Associate. A building to house executive and business offices, magazine editorial offices, employes' rooms, conference room, and library, this remarkable circular structure is raised half a floor above the ground, with car parking provided underneath. Concrete construction is based on simple post-and-lintel principles; partitions are either painted concrete block or folding partitioning. Year-round air conditioning.

For several years, the dollar volume of housing construction has been close to one quarter of the total reported. Though the anticipated volume fell off in this year's forecast, it still accounts for 20%. Regionally, there is considerable variation—from a high of 29% on the North Atlantic Seaboard to a low of 3% in the States immediately south of the Great Lakes. It is only fair to temper this latter figure, however, for it is from this area that a disproportionate outlay was reported for scheduled defense work.

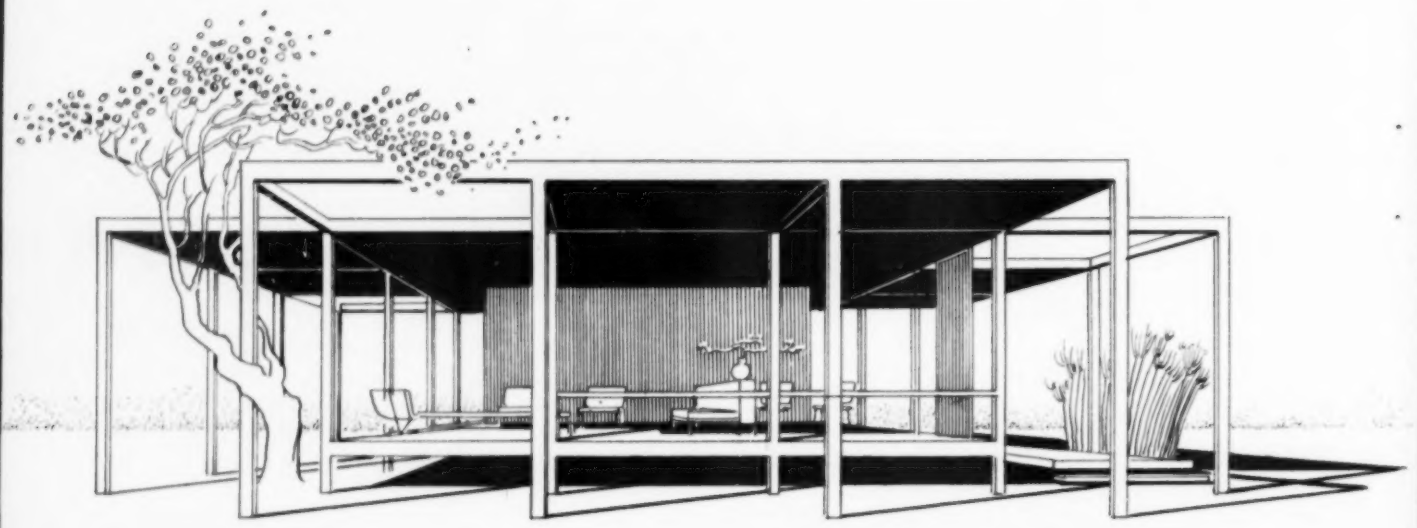
The private house is a curious sport in the architectural field. Some basic criteria exist, but in the main, a house for a single family is a highly individual affair, and exact general standards are almost meaningless. The happiest way we have found to view the private house from the architectural standpoint is as a fortuitous laboratory for design experimentation. The individuality (in some instances, pure "orneriness") of the one-man client makes it possible to try things in this field that would not readily be countenanced in a school, or hospital, or church. Observation will prove, however, that many an idea that was first tried in the home of some open-minded client, later has found its way into buildings with a broader financial and communal base.

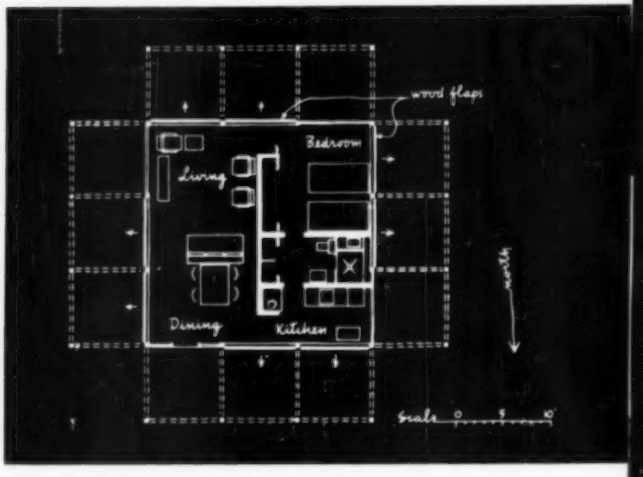
The houses illustrated on these pages are a good demonstration of the diversity, experimental quality—even pure whimsicality—that one encounters in the custom-designed house. There is no point in attempting to compare, for example, the guest house in Florida (page 72) with the development houses destined for Paradise, California (pages 74 and 75). Yet there is no question that each of these—as well as the other houses shown—offers fresh potentials to stir the imagination. Viewed as products of the design-research laboratory, as well as appropriate solutions to highly individual living problems, one can welcome the broad palette that is offered. And be pleased that housing still claims approximately one fourth of the architect-designed building-dollar volume.



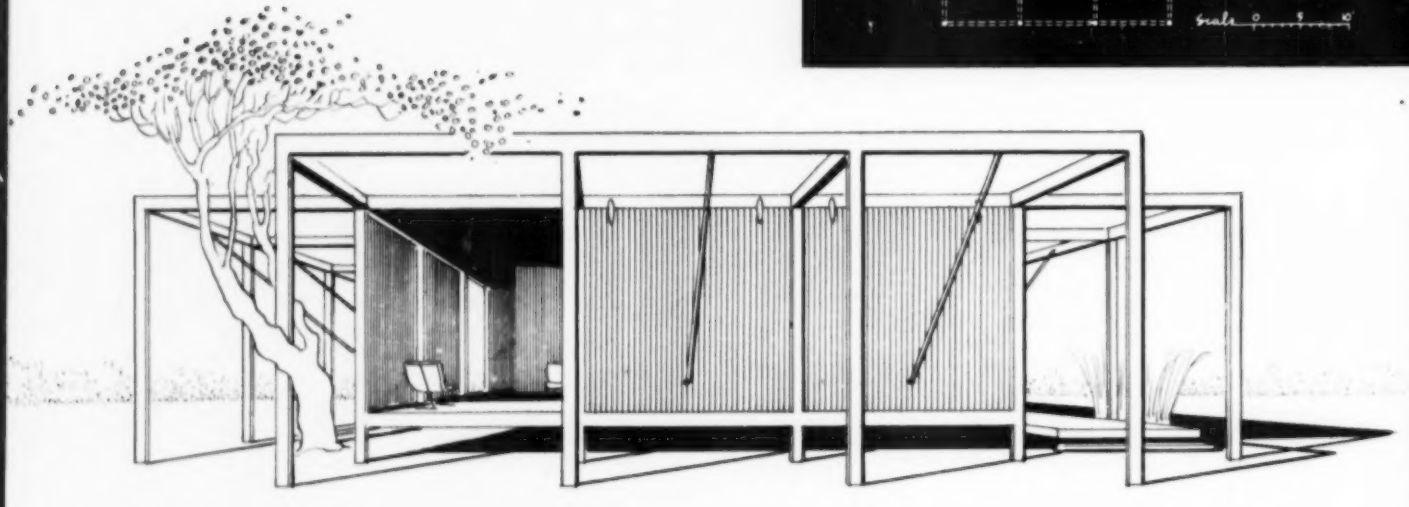


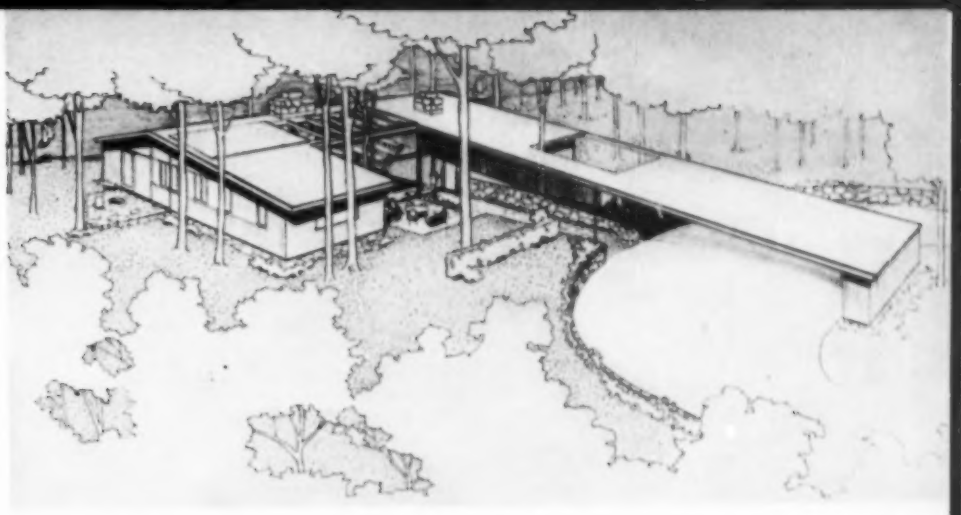
House, Chapel Hill, North Carolina: George Matsumoto, Associate Professor of Architecture, North Carolina State College School of Design, Architect. A home for parents and four young sons, this house is perched on a 12 to 15% slope. At the lower level is a sheltered outdoor sitting area and a partial basement (storage and heater rooms) in back of a one-block retaining wall. The main floor is divided between adult and children's quarters by a continuous-strip utility core, lighted by plastic bubble skylights.

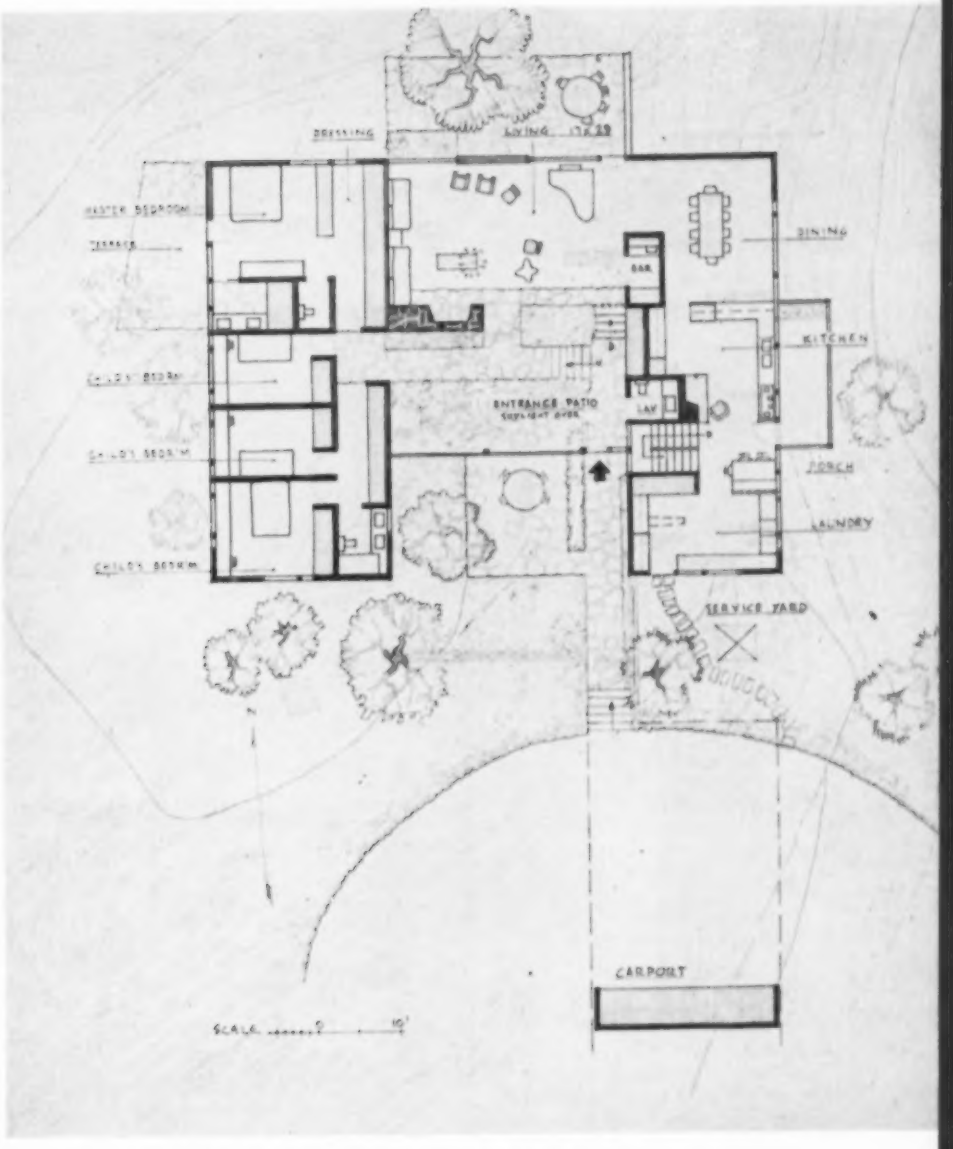




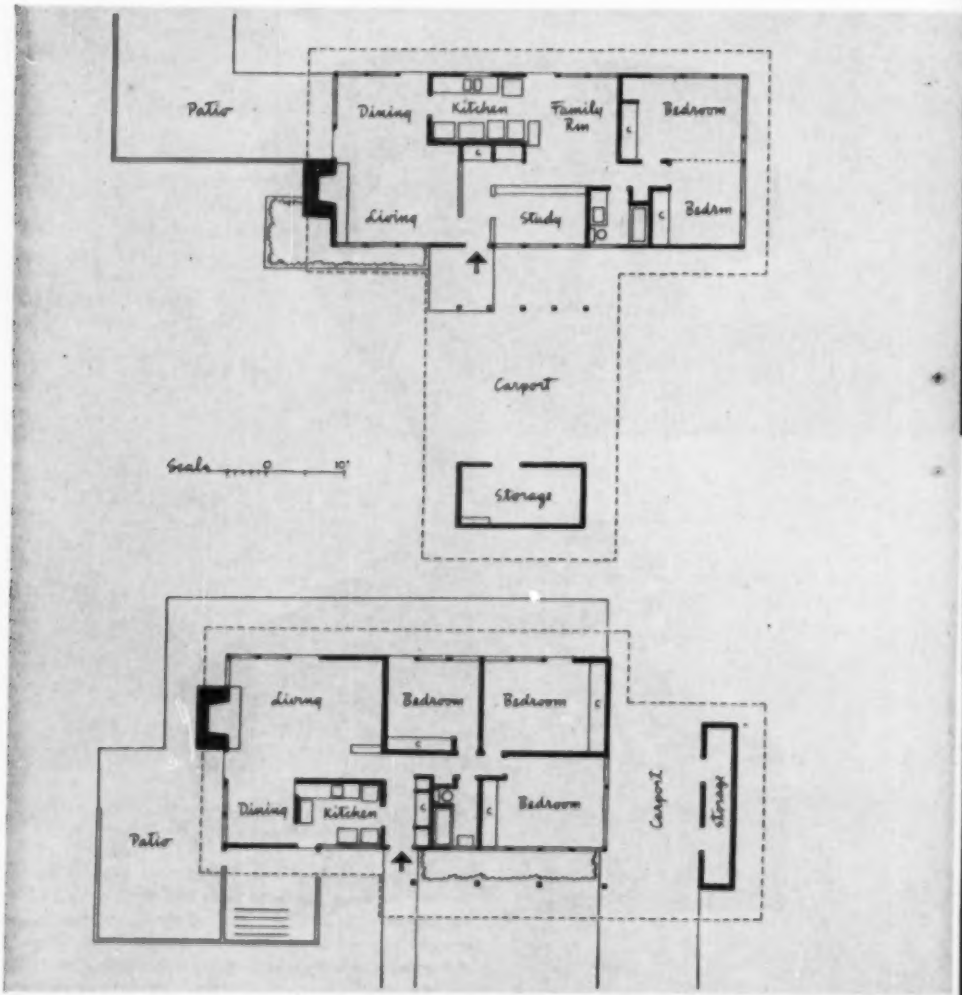
Guest House, Sanibel Island, Florida: Paul Rudolph, Architect. Each side wall of this square house is made up of three equal panels —one of fixed glass (or including a door); the other two, of upswinging, counterbalanced wood "flaps," outside fixed screening. Thus, with all panels lowered, the house may be quite enclosed; when the flaps are raised, it becomes a large, screened living pavilion, with the lifted panels forming effective sunshades.



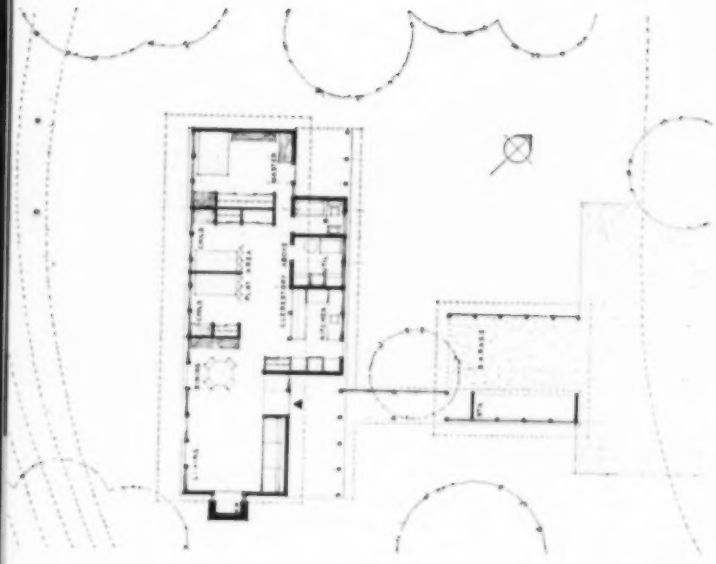




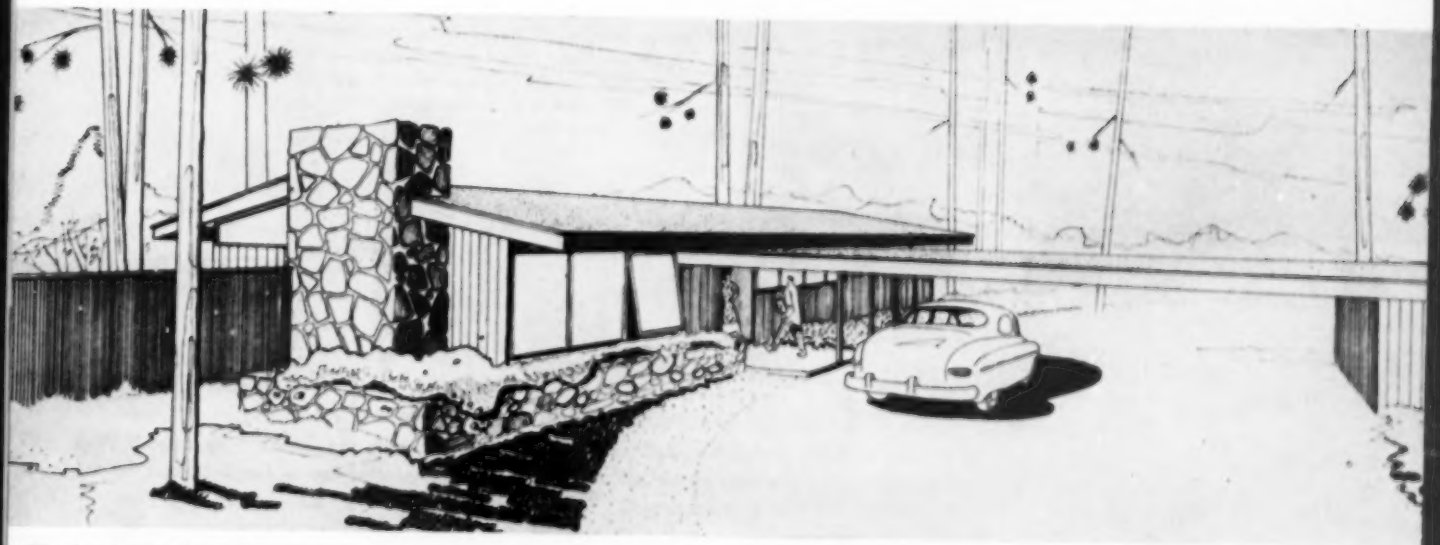
House, Cooper's Bluff, New York: Carl Koch & Associates (Frederic L. Day, Jr., Leon Lipshutz, Margaret M. Ross), Architects. Designed for a spectacular site with views of the Long Island Sound to north and west, this house is organized on several levels. From the glazed entrance patio, a half-flight leads up to the living level; bedrooms are on the west wall; a lower floor occurs under the east wing.

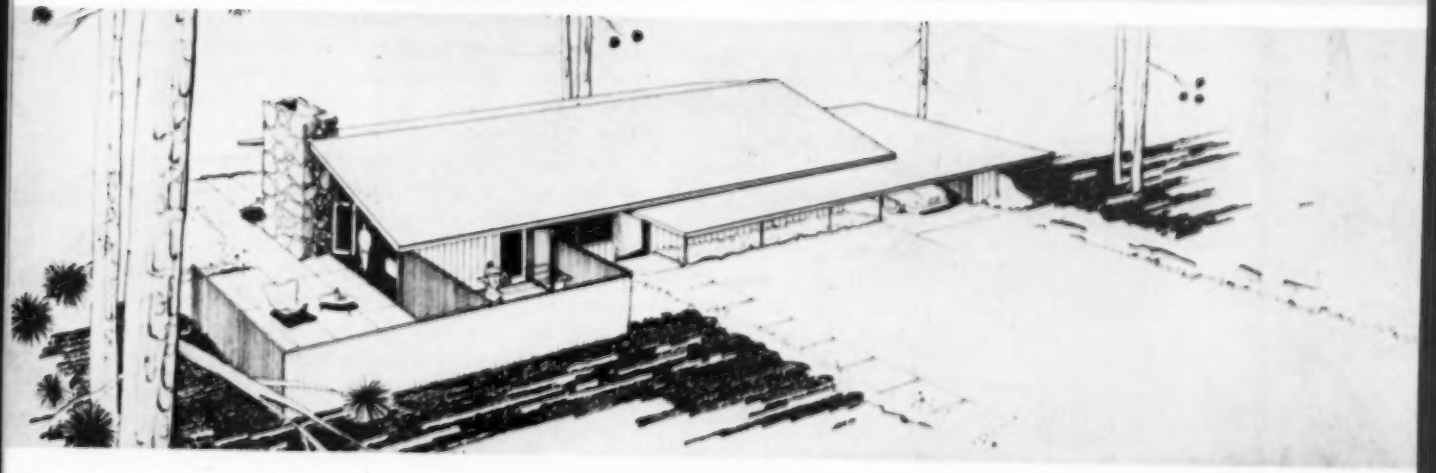


Development. The two floor plans (right) and renderings (acrosspage) show two of the basic house types for a 44-home development known as the McGregor Plot, Paradise, California: Roger Lee, Architect. Roy Holt, the owner-builder, wanted a subdivision of houses (perhaps six types and their reverses) for informal and outdoor living on quarter-acre plots. Sales price, including lot, to be around $16,000.



House, East Liverpool, Ohio (plan, left) (rendering, acrosspage): *Porter & Kelly, Architects. A home for a family consisting of parents and a young daughter and son. The house employs an exposed post-and-beam system, with fir plank walls, inside and out; the roof is of cement-bonded wood fiber, giving finished acoustical ceiling, insulation, and one ply of roofing in the single material. Warm-air perimeter heating in concrete floor slab. The bedroom corridor doubles as play space.*





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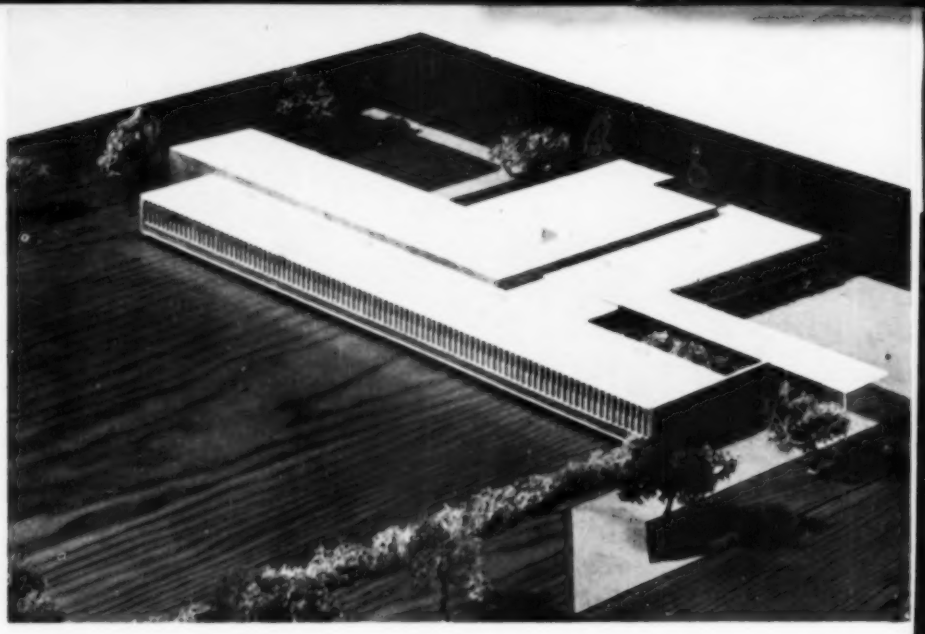


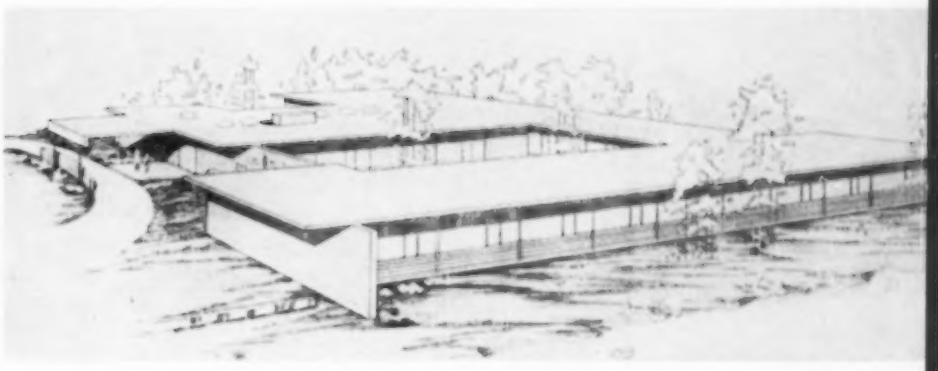
St. James Parish Hospital, Lutcher, Louisiana: Curtis & Davis, Architects. A 25-bed general hospital, with the main entrance to the east; operating rooms, ancillary services, outpatient department, etc., in a north wing (left); *and patients' rooms in a south-facing pavilion* (above) *bordered by adjustable, vertical aluminum louvers. A second 25-bed pavilion may be added later, some distance south of the initial one and joined to it by a central corridor. Estimated cost, including all equipment: $305,000.*

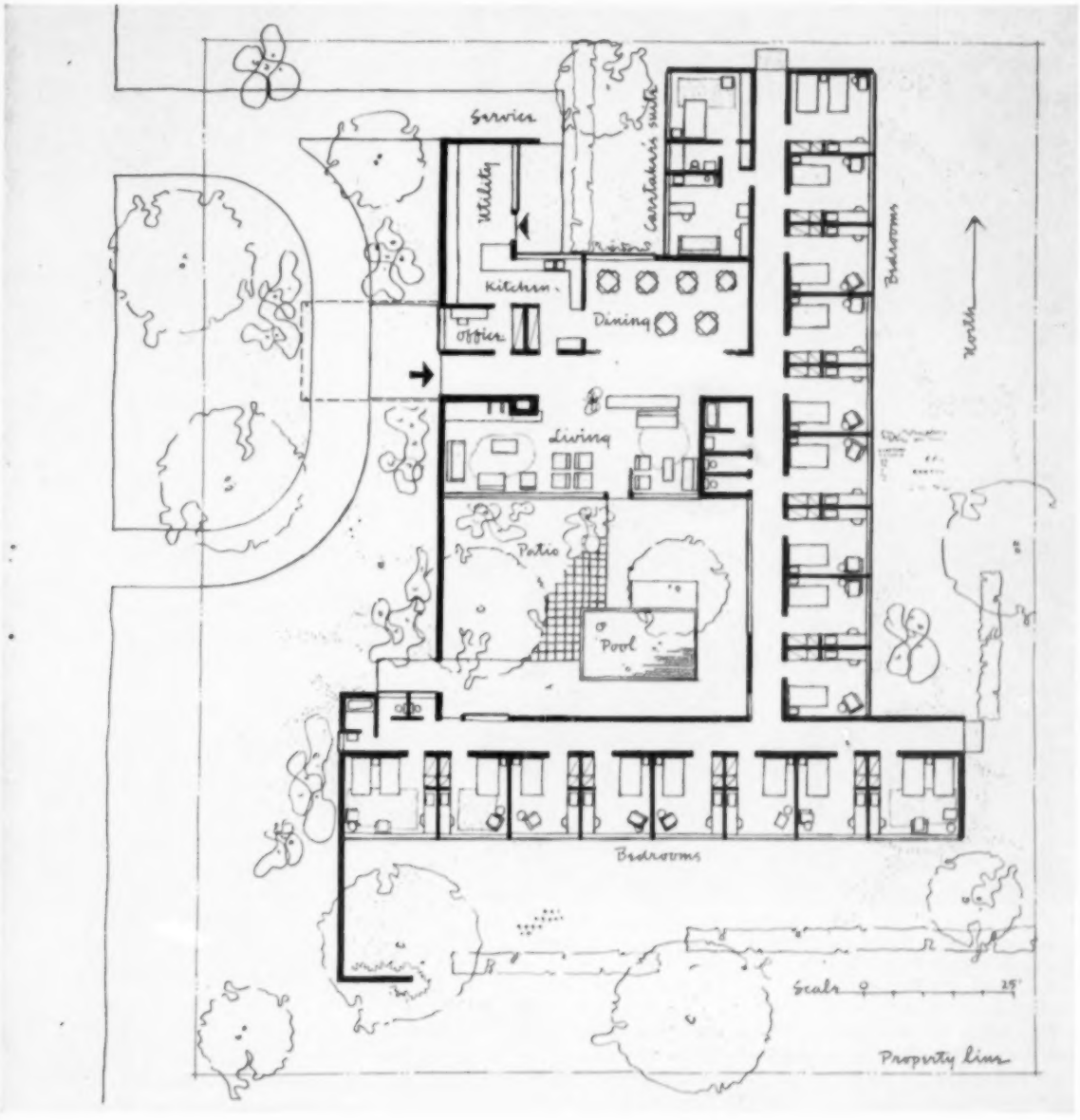
Health Facilities

Of all the building categories, health facilities probably stand the best chance of reaching a completely objective design solution. For the problem usually can be quite definitely stated, and all concerned wish to achieve as efficient and up-to-the-minute a solution as the budget, latest medical knowledge, and architect's talent can produce. While health facilities do not account for a large percentage of the total building dollar to be spent—for this year, the estimated percentage is but 8%, as against 14% for 1952—they consistently constitute some of the most forward-looking and untrammeled designs in the entire architectural field. While the group that came to the Jury's attention this year included numerous general hospitals—two of the smaller ones winning their special acclaim (above and page 51)—perhaps the greatest interest lay in the indication of new types of health care and new organization of established services that, in effect, result in new building types.

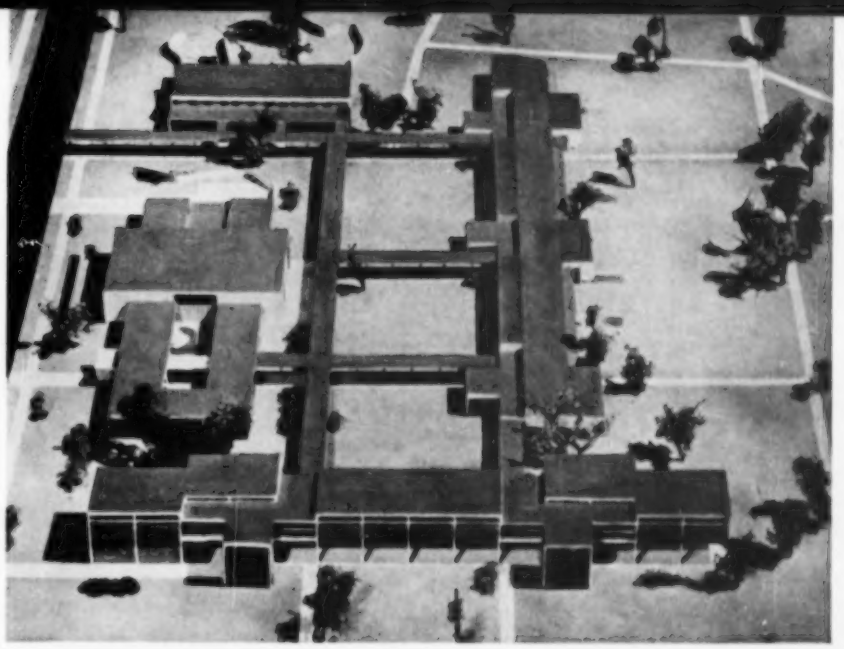
Most noticeable in this regard are indications that humane care for the aged is receiving more social—and architectural—attention. Among the few projects shown here, for instance, are a home for the aged (page 77) that puts emphasis on a home-like atmosphere, and the complex to serve the Pittsburgh area (page 78) that, in addition to a general hospital, includes specialized new types of buildings to further the well-being of elderly people in various states of health.

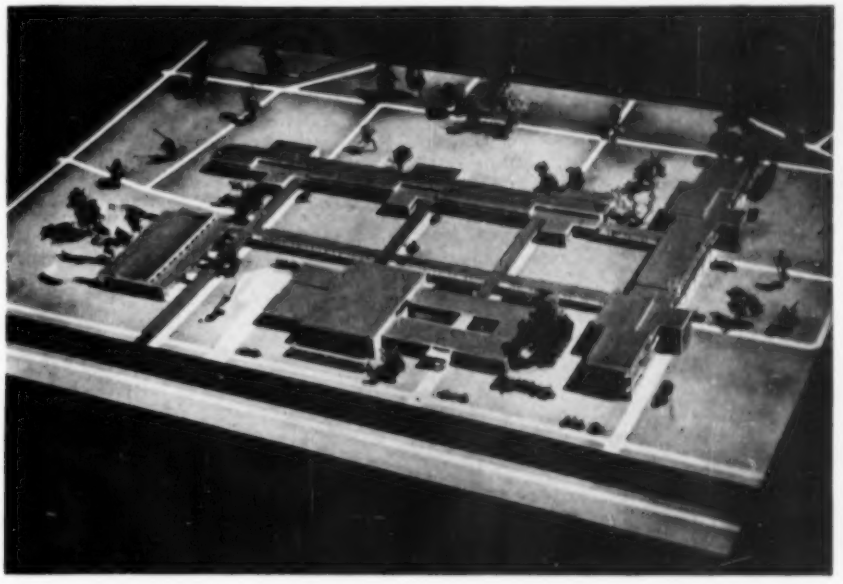
Home for Aged People, Wichita, Kansas: Ramey & Himes, Architects. In designing this home for one of the least-favored social groups in the community, the effort was to minimize the institutional aspect, face as many rooms as possible to the south or east, and provide a homelike atmosphere in the living areas and landscaped patio. Fireproof construction; approximate cost $125,000. "Good planning," the Jury commented.





Allegheny County Home and Hospital, Pittsburgh, Pennsylvania: Button & McLean, Senior Architects; Mitchell & Ritchey, Architects-in-Charge of Planning and Design. This 2100-bed project includes (top photo, left to right) *a pair of one-story pavilions (one for men; one for women) for ambulant residents; a pair of multi-story buildings for semi-ambulant; connecting common-use elements, such as the round auditorium, library, chapel, etc.; and the general hospital. Approximately $15,000,000. Jury admired plan concept and total design expression.*





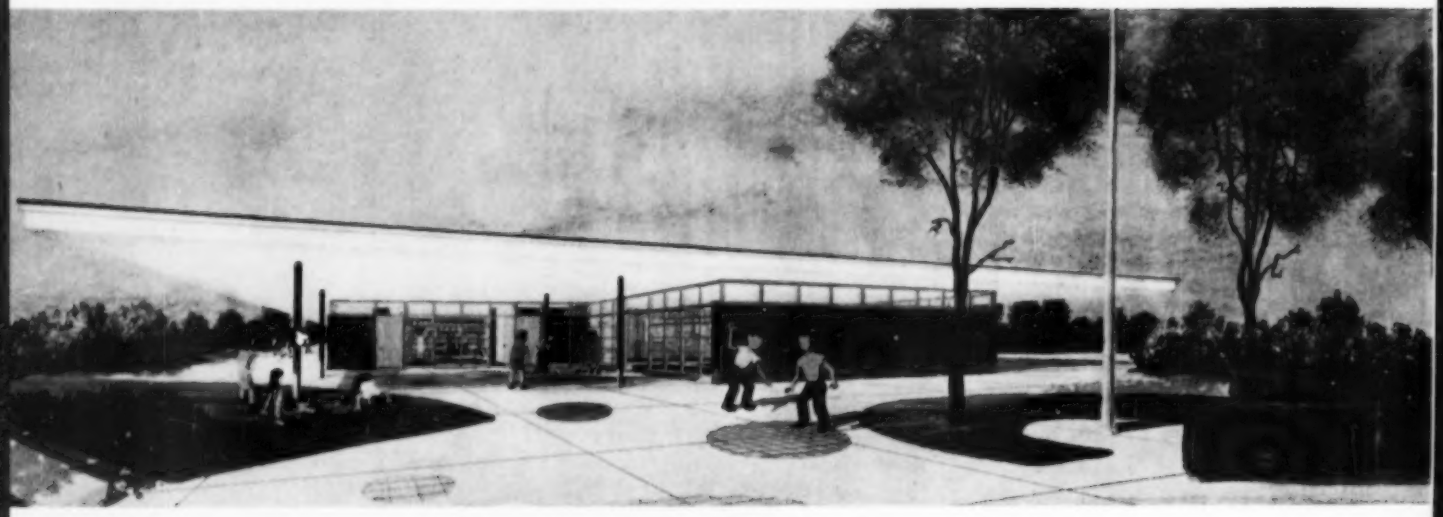
Oak Park Elementary School, New Orleans, Louisiana: William R. Burk, Associated Architects and Engineers. Organized around a series of courtyards in separate units, according to age groups, the main elements are (photo right, bottom) *kindergarten (foreground, left); administration and cafeteria unit; long, two-story, north-south wing, with library, multi-use rooms, and classrooms on the ground floor; fourth, fifth, and sixth grades on the second floor, and (in the background) classroom groups for the first, second, and third grades, in a one-story building. Estimated cost: $500,000.*

Educational Buildings

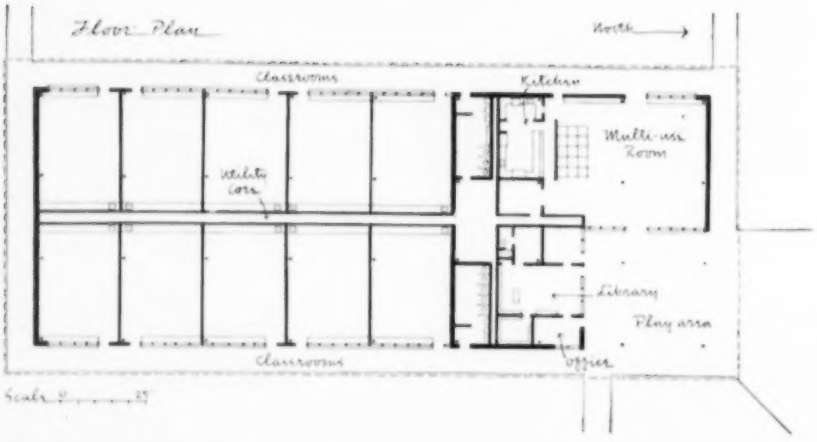
Even in this troubled era, by far the largest number of building dollars (with the exception only of those going for defense buildings) will be spent this year for educational structures. If one may be permitted to read between the lines, one might conclude that whatever is to happen, at least it will be with benefit of well-schooled younger generations. However (the point is often raised), no matter how excellent the buildings that are provided for education, the more important criterion is *what* is being taught. Yet one can also argue fairly that whether the educational program is stodgy or progressive, it will be the better for being housed in a building well planned, well built, properly lighted, pleasant, and efficient.

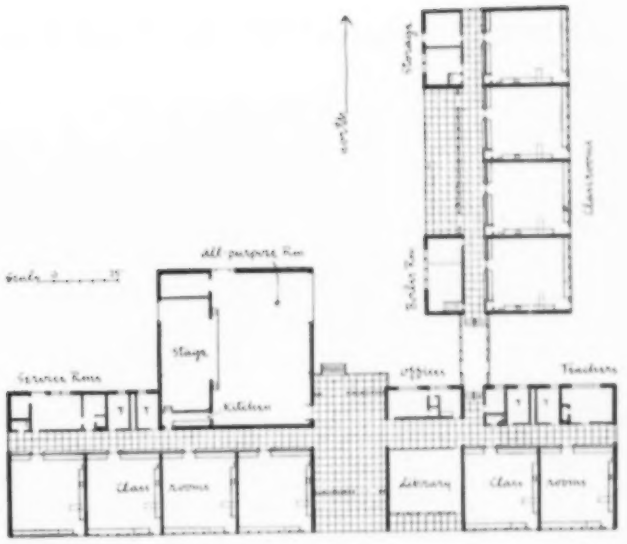
Since this is to be such an active field, it is not surprising that we show more buildings for education than we do of any other building type reported. More and more, schools appear to be planned to serve the entire community, as well as the school children immediately attending. Design experimentation continues to thrive in this field. In plan, ideas now range from the extreme compactness of the elementary school for Laredo, Texas (page 80), to the conscious dispersal of elements illustrated by the school for Taunton, Massachusetts (page 81); from the highly departmentalized plan, such as the one for the New Orleans school (see above), to huge, campus-like schemes, as instanced by the school for Antioch, California (page 84). In structure, one finds laminated-wood arches used for clear spanning of large areas, the lift-slab technique; and in the building for Maryville College (page 86) perhaps the most inspired structure and refined design of any building shown.

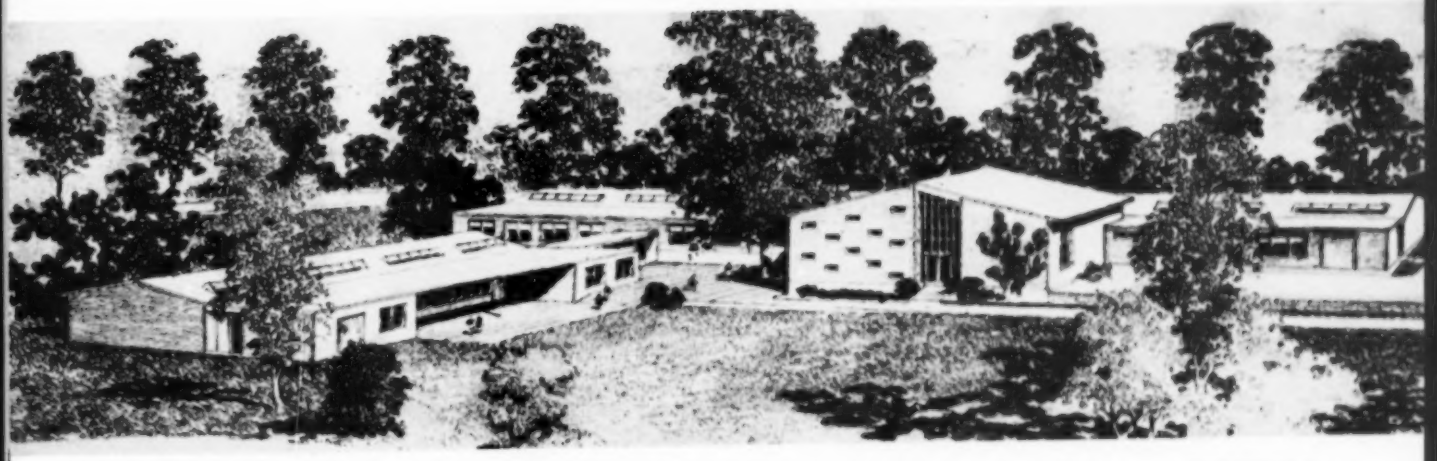
For a time, it seemed as if contemporary school design had frozen in one or two good basic solutions and their variations. A study of the following pages, however, demonstrates that architecture for education is as lively as ever.

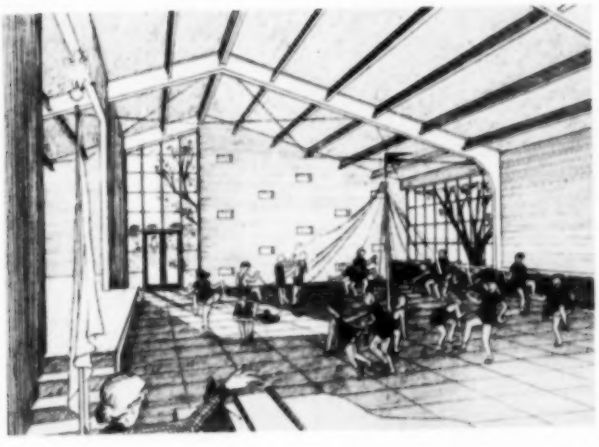


New Heights Elementary School, Laredo, Texas: Caudill, Rowlett, Scott & Associates, Architects; A. A. Leyendecker, Associate Architect. Economical plan, with back-to-back classroom scheme, the core serving both for utility lines and as a ventilation channel. Lift-slab construction, the cantilevers forming shelter for the perimeter access walk. Classroom partitions (detail, bottom page) *composed of corkboard, chalkboard, and panels of perforated fiberboard or plywood. Estimated cost: $9.45 per sq ft.*

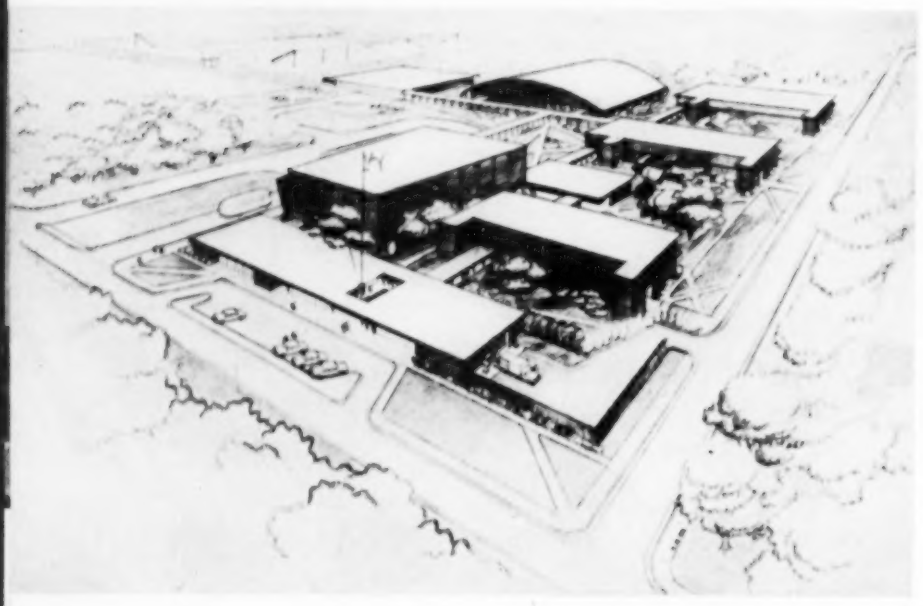


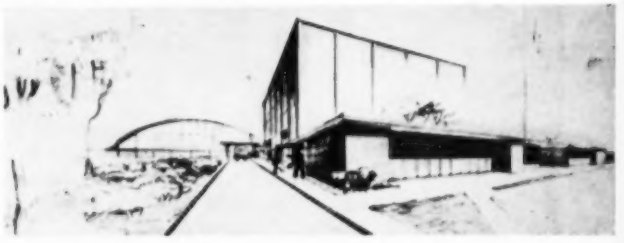


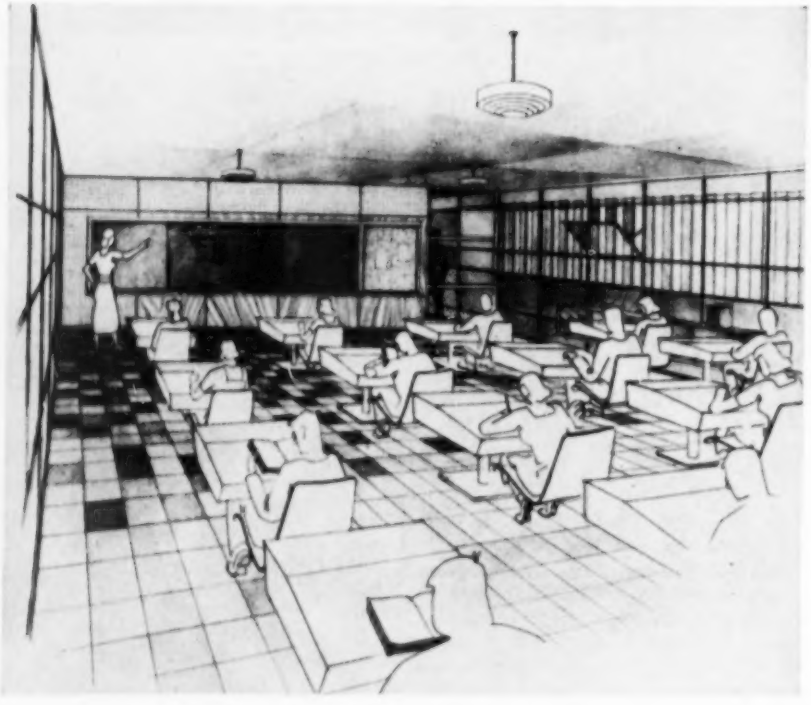




Oak Street Elementary School, Taunton, Massachusetts: The Architects Collaborative and Smith & Sellew, Associated Architects. Design goals: to have classrooms on one side of the corridor, service rooms on the other; to maintain an intimate child scale, and to break up units so that the total is not overpowering. The aerial perspective is from the rear; interiors show the all-purpose room (left) and library. Estimated cost: $350,000.

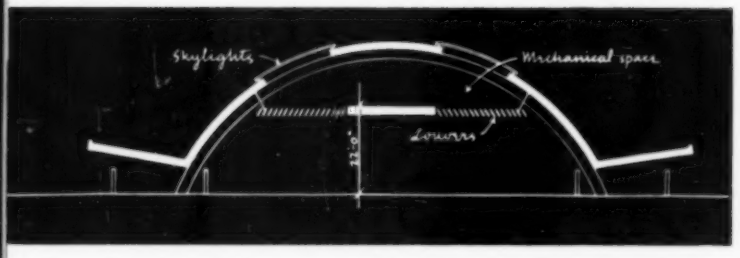




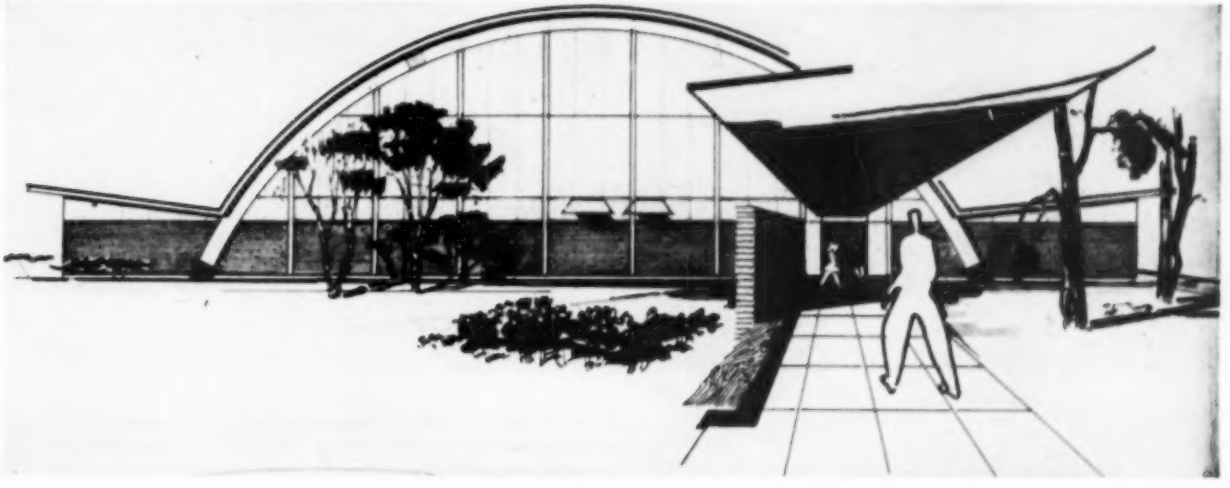


High School, El Campo, Texas: Richard S. Colley; Ford & Rogers, and William Tamminga, Associate Architects. Planned for an eventual enrollment of 600, this spreadout scheme includes a large auditorium, curved-roof gymnasium, administrative building, and office-cafeteria-music unit, as well as three, two-story classroom blocks, with clear windows on the north and, on the south, outside access corridors, bordered by vertical sunscreens. Looking past the music building and auditorium (small photo above) *one sees the gymnasium in the background.*

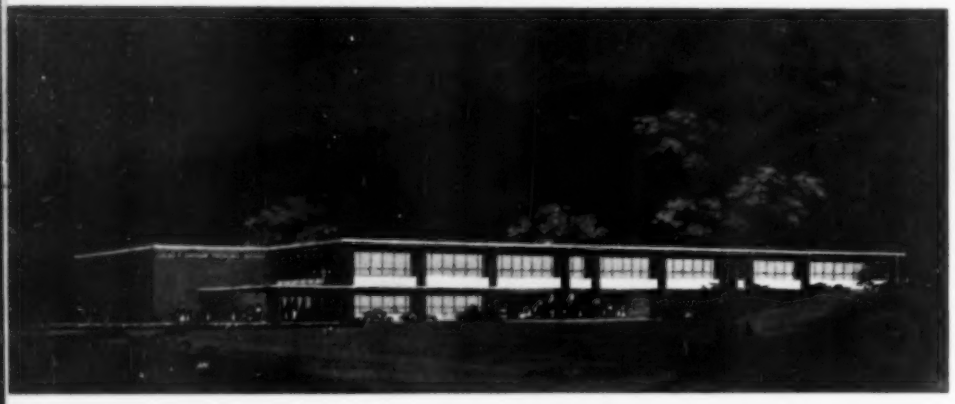
University Hill Junior High School, Boulder, Colorado: James M. Hunter, Architect; Hobart D. Wagener, Associate. Seen from the northwest, the two-story classroom wing is at left, the upper level coming at grade as the land slopes upward. At right is the auditorium, while the curved roof of the gym, supported on laminated-wood framing, appears in the background. All interior room areas have plastic sky domes to assist natural illumination. Outline of prestressed concrete structure of classroom wing, on page 89.



High School Gymnasium, Davenport, Washington: J. Lister Holmes; McClure, Adkison & MacDonald, Architects and Planning Consultants. Primary framing arches are glue-laminated wood, providing a 22-foot ceiling. The side bays housing locker rooms, showers, etc., are framed in steel, with wood-joist roof. Skylights and louvers in suspended ceiling are designed to provide 30 ft candles.



design/techniques 1953: EDUCATIONAL BUILDINGS

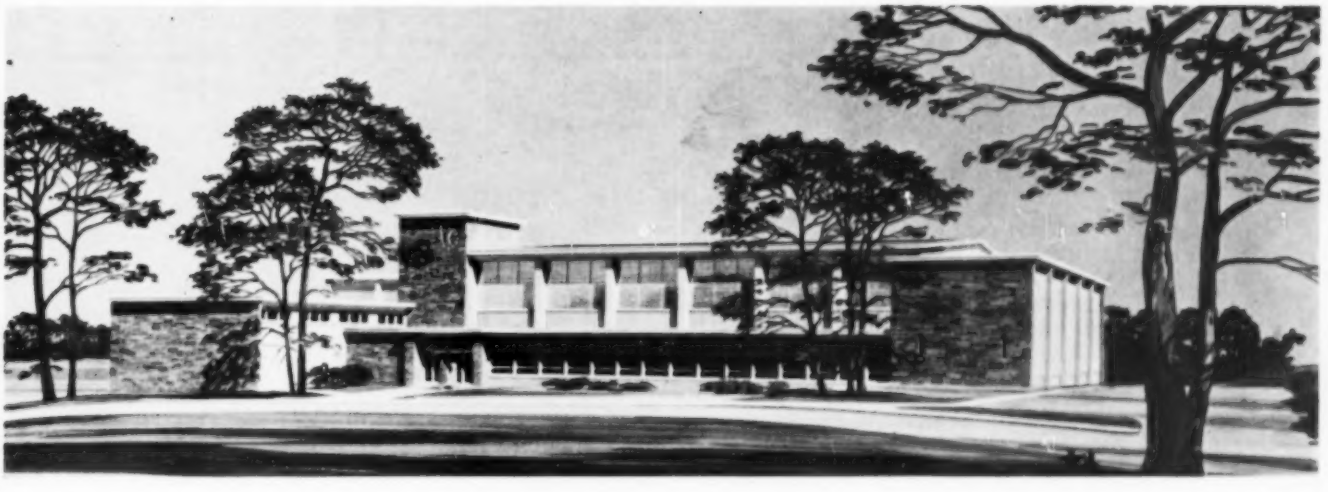


Primary School for the Tarrytowns, Westchester County, New York: Robert A. Green, Architect. Accommodation to the site slope places all classrooms, including kindergarten, on upper floor; main entrance, a health unit, access to the gym-auditorium-cafeteria unit, and the covered outdoor play space are at the lower level. "A good serious job," said the Jury. "Will probably wear a whole lot better than most others we have seen."

Senior High School, Antioch, California: Wurster, Bernardi & Emmons, Architects. Nearest the public road (foreground, rendering below) are the boys' and girls' gyms, either side of swimming-pool court (left) and the cafeteria-auditorium group (right). Double-loaded corridor classroom pavilions, in quieter location toward rear of site. Estimated cost: $2,500,000.

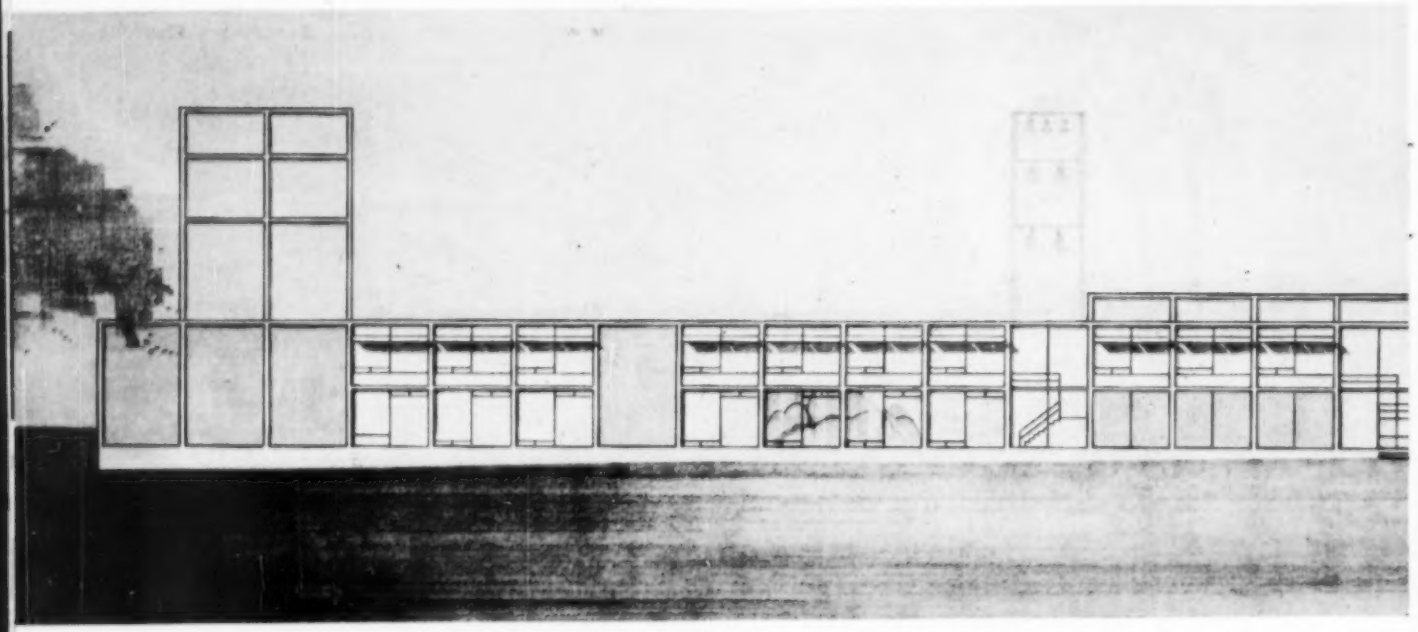
Frederick Douglass Stubbs Elementary School, Wilmington, Delaware: Victorine & Samuel Homsey, Architects. A 26-room school, the classrooms are in a two-story, L-shaped element at left and background of rendering, while gym, cafeteria, auditorium, multipurpose rooms, and community health unit are in one-story units nearest the street where they are readily accessible. Estimated cost: $1,350,000.

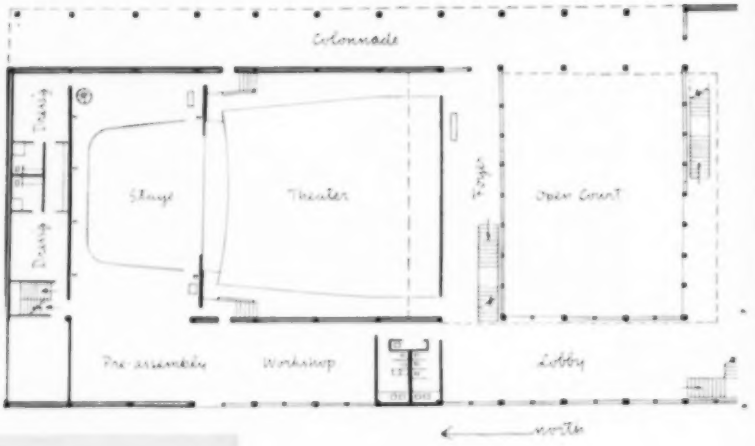
Administration Building, University of Miami, Miami, Florida: Watson & Deutschman, Architects. In this stage of the design, the low mass of the building contains offices for deans, student activities, matriculation work, etc., while 150 offices for faculty members occupy the attached tall office building. Approximately $1,000,000.

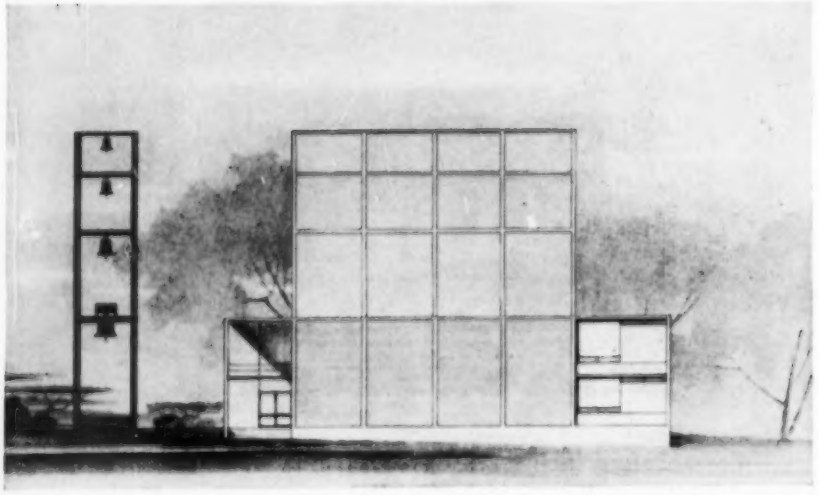


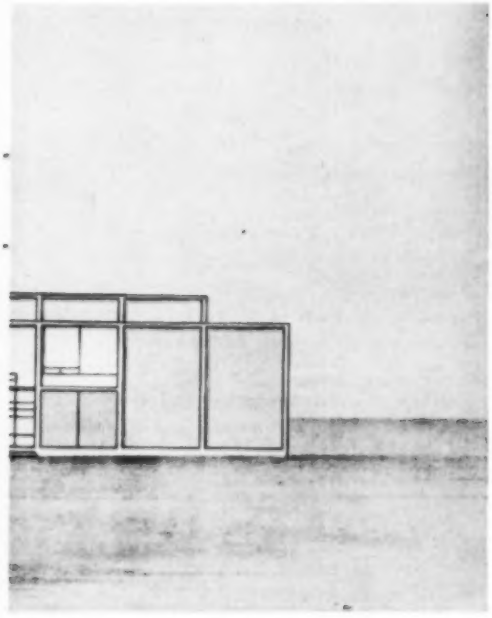
Community Arts Building, Wayne University (center, above), Detroit, Michigan: Suren Pilafian, Architect. Classrooms for instruction in art, music, and speech departments; also a 600-seat auditorium.

Physical Education Building, Goucher College (immediately above): Baltimore, Maryland. Moore & Hutchins, Architects. About $600,000. "In very good taste," the Jury felt.

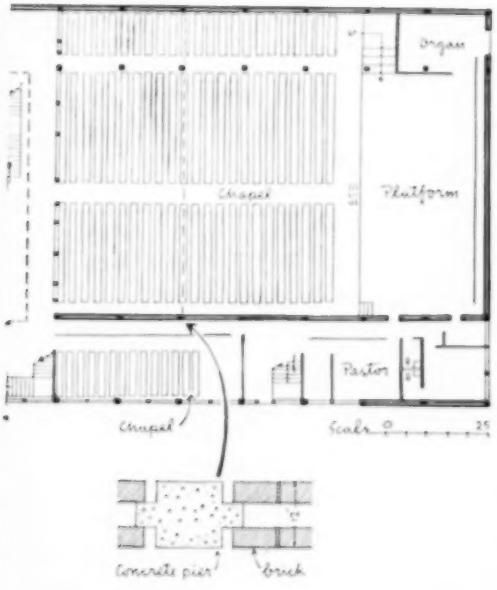


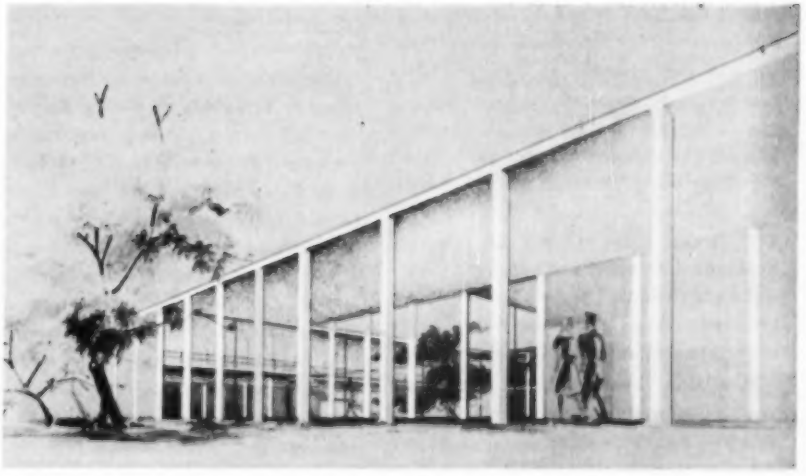

Colonnade
Ramp
Stage
Theater
Ramp
Open Court
Pre assembly
Workshop
Lobby
north

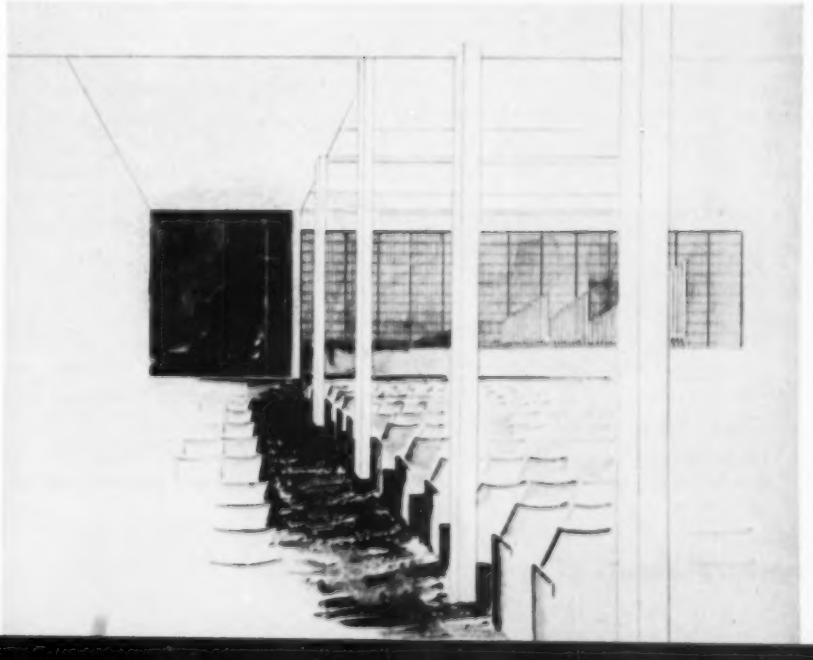




Samuel Tyndale Wilson Chapel, Maryville College, Maryville, Tennessee: Schweikher & Elting; Barber & McMurry, Associated Architects. The two main elements are disposed within the disciplined rectangle of the plan—at the south end, the chapel proper, which, including its balcony, will seat 1200 worshippers; at the opposite end, a small college theater, to seat 450 and equipped with a full working stage. A landscaped court separates the two and provides access to the second-floor classrooms, along the west side. The highly rationalized structural system is described on page 89. The freestanding bell tower, to the east, is to be built of steel. The Jury's enthusiasm was unbounded—"excellent . . . beautiful . . . extremely sensitive feeling."







Engineering Forecast

Perhaps the newest refinement in structural design available to the architect and engineer for 1953 will be the two-way prestressed-concrete slab. Two such slabs, each measuring 88 ft x 38 ft x 6 in. with 24-ft column spacings, have recently been prestressed at the Southwest Research Institute, San Antonio, Texas, and have now become the floor and roof of a laboratory building there. Being a project of that Institute, one would be correct in suspecting that the slabs were poured one on top of the other at ground level, and then lifted into position by means of hydraulic jacks placed on top of the steel columns. One major saving that is possible with these prestressed slabs is in the required steel. Only 1½ psf of steel is needed as compared to the conventional 4¼ psf for reinforced-concrete flat-slab construction. Further, the 6-in. thickness of the prestressed slab replaces an 8-in. thickness that would be required normally. To accomplish these savings at San Antonio, 200,000 psi ultimate strength steel, ¼ in. diameter, was prestressed by post-tensioning. Inherent advantages of these slabs are: larger slabs, savings in material, minimum deflections, and reduction of critical shear stresses. Combined with lift slab, the prestressing of flat plates will be a very important consideration in construction.

In addition to the illustrated structures containing prestressed girders (pages 89 and 93), numerous other examples of prestressing were reported from different parts of the country. Among these are prestressed roof girders for a heavy equipment shop at Salem, Oregon, designed by Carl C. Schneider of the State Highway Department. One of the first examples (as well as the heaviest) of continuous prestressed concrete girders in the United States will be found in San Francisco. These have been designed by Ellison & King, Consulting Engineers, in collaboration with T. Y. Lin, Associate Professor of Civil Engineering at the University of California. At midspan (spans are approximately 60 ft), these girders support columns carrying six floors of parking!

The battle for recognition of tilt-up seems to have been won and many instances of its use were reported. One of the most interesting designs has been made by Jean R. Driggs, Salt Lake City Consulting Engineer. Lightweight perlite-concrete panels, 10 ft high, 20 ft long, and 6 in. thick, have been cast at the site and assembled on a rigid frame. Driggs' construction promises to be highly effective in producing a fireproof, self-insulating, economical warehouse.

The steel industry will continue to promote the use of steel exteriors for multistory buildings. Stainless steel, porcelain enameled steel, as well as carbon steel are finding increased acceptance in this field. In the stainless steel group, Type 430 is gaining recognition as an architectural steel to help fill the place of restricted Type 302. Steel will also be promoted for the use of industrial roofing and siding, residential structures, and for residential equipment.

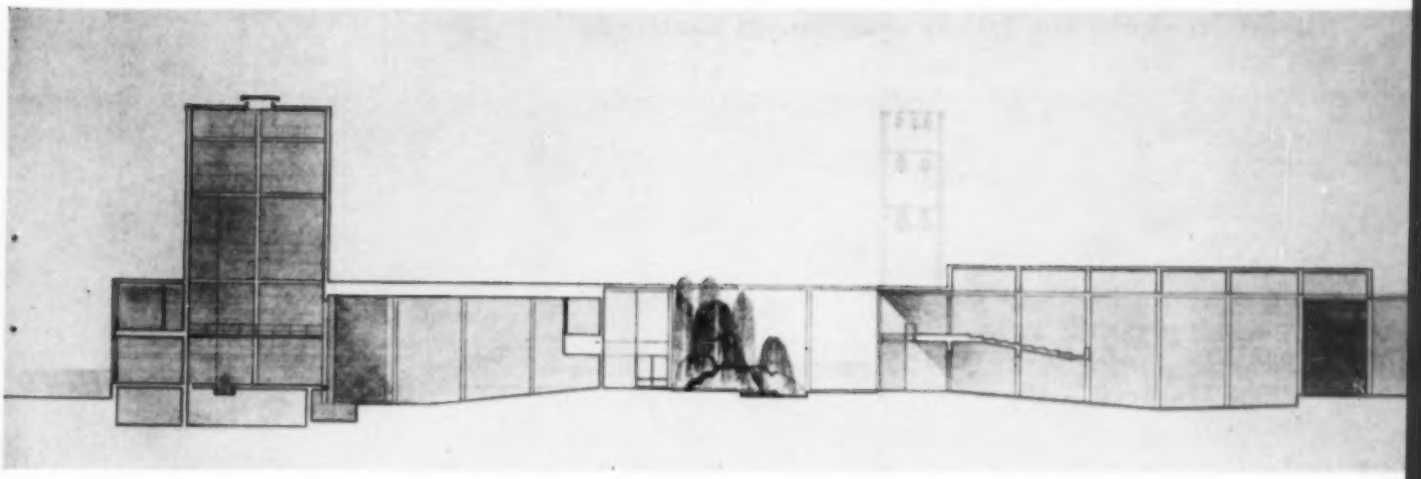
One of the most promising steel developments to be announced during the coming year will be the results of research being performed by the office of William Lescaze, New York Architect, for the Porcelain Enamel Institute. Assisted by four representatives of outstanding enameling firms in this country, Lescaze has attempted to perfect a suitable curtain-wall panel to meet existing urban codes. The proposed uses of the panel have been considered for: (1) noncode areas (noncombustible) and (2) code areas (where two-, three-, and four-hour fire ratings may exist). Porcelain enamel will be used for all steel surfaces and as the researchers do not wish to limit the core to any one material, several types are being investigated. These will include cement-bonded wood fibers, calcium silicate, and glass fiber board. To minimize maintenance no calking will be needed for the finished wall and maximum use will be made of gaskets. Although the bay system, floor-to-floor height, and window sizes can all effect the size of a panel, it is contemplated that none of the panel weights will exceed 150-160 lb—an amount that is convenient for two men to handle. Panel erection will be from the inside of the building to eliminate scaffolding. One of the major contributions of this type of panel will be the many color possibilities that can be introduced into the design of a building. By now, a full-scale model (for noncode areas) has been fabricated and is currently undergoing thorough testing.

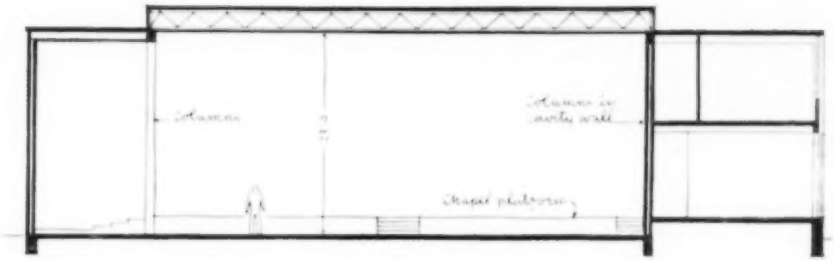
Aluminum will be used for countless new architectural products and at least a dozen multistory buildings with all-aluminum curtain-wall construction are either under construction or in the design stage in the midwestern and southwestern areas of the country.

Numerous state and municipal electric power companies are continuing to investigate the feasibility of heat pump installations for their respective areas. Architects Lacy, Atherton & Davis have informed us that they will install a heat pump for the Metropolitan Edison Building in Wilkes-Barre, Pennsylvania. Consulting Engineer Robert H. Emerick, North Charleston, South Carolina, advises that the use of heat pumps is also gaining ground in his section of the country—particularly the 5-ton size. He also notes a generally expressed desire on the part of his clients to have the ducts of warm-air heating systems sized for eventual summertime duty, handling chilled air.

Something new has been added to fluorescent lighting. By means of a new light control system, developed at Nela Park, Cleveland, the brightness of fluorescent lamps can now be controlled merely with the turn of a knob, just as smoothly and easily as incandescent lamps have been dimmed or brightened in the past. The dimming feature is expected to find favor in such a variety of places as theaters, auditoriums, schools, display rooms, stores, hotels, night clubs, restaurants, show windows, and many others.

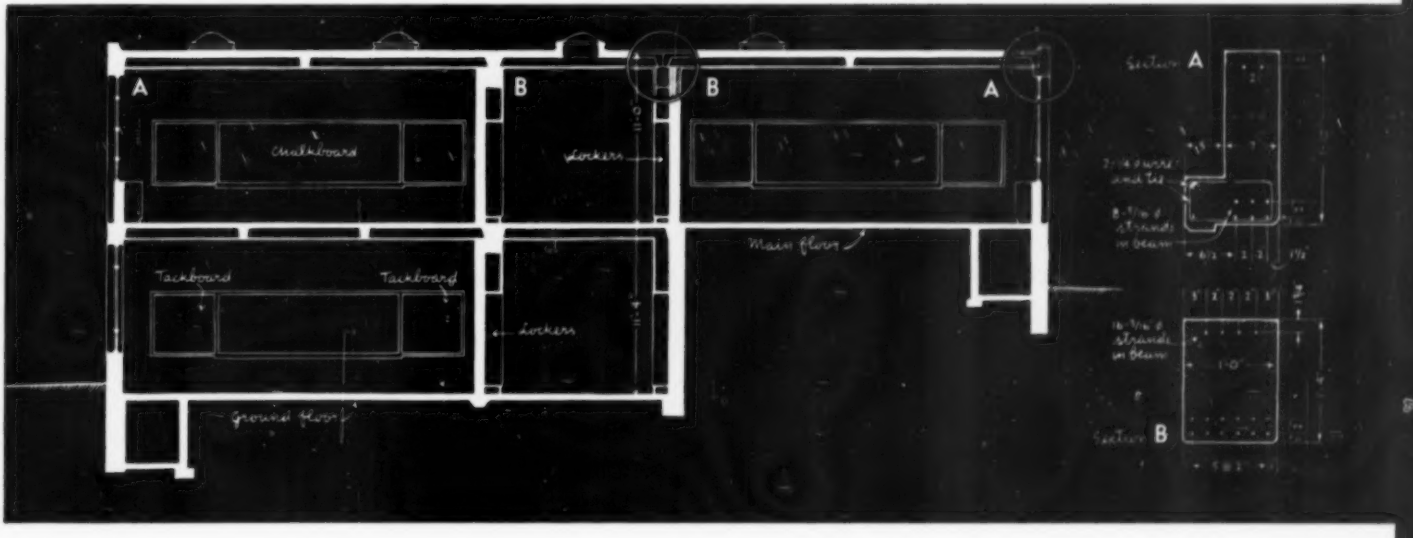
The Plumbing and Heating Industries Bureau has announced a new development of interest to builders of homes beyond water mains, owners of resorts, and farmers; it is the submersible pump. Both pump and motor can now be obtained in one complete assembled factory unit which can be installed in a well below the water level. The City of Los Angeles has specified submersible pumps and motors of this type for the storm drain pumping plant for the Sepulveda Boulevard Subway under the runways of the International Airport.



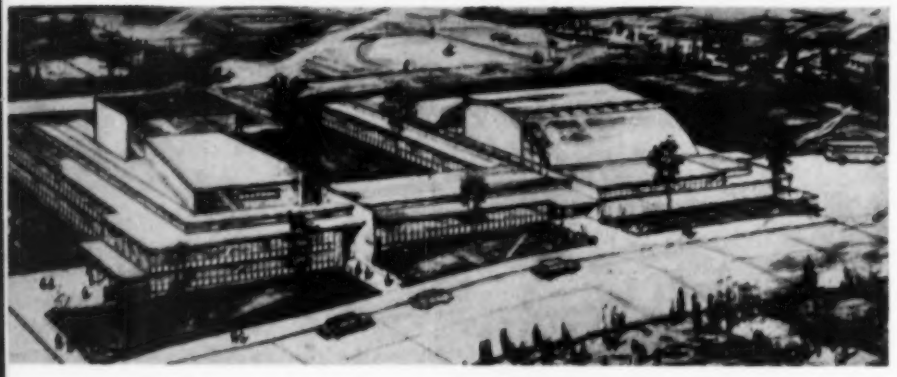


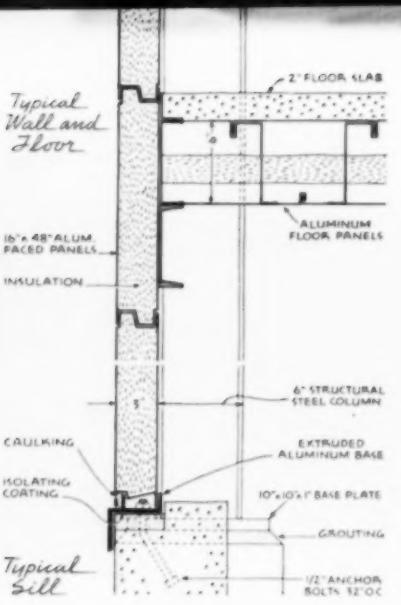
Samuel Tyndale Wilson Chapel, Maryville College, Maryville, Tennessee (longitudinal section above, transverse left). *Schweikher & Elting: Architects; Barber & McMurry: Associated Architects; Samuel R. Lewis & Associates: Consulting Mechanical Engineers. A simple rectangular scheme was developed with a 15-ft modular bay of poured concrete columns, beams, and slabs. As required by plan, the space between columns is void, transparent, translucent, or solid. Void panels form exterior or interior arcades; transparent panels are glass; translucent panels are wood grilles over glass; and the solid panels are cavity walls of brick exposed on both sides. A conscious and constant effort was made to keep the concrete structure as light and delicate as possible—consistent with rigidity requirements.* (Plan and elevations on preceding pages.)

University Hill Junior High School, Boulder, Colorado (below): *James M. Hunter, Architect; Phillips-Carter-Osborn, Inc., Consulting Structural Engineers. Prestressed concrete girders and channel slabs will be used in the classroom area of this school solely for reasons of economy and expediency. As the prestressed concrete members can be installed cheaper than unprotected steel, the school board will receive a fireproof building at the lowest possible figure. 6000-lb concrete with a ¾-in. slump has been specified.* (Rendering shown on page 83.)



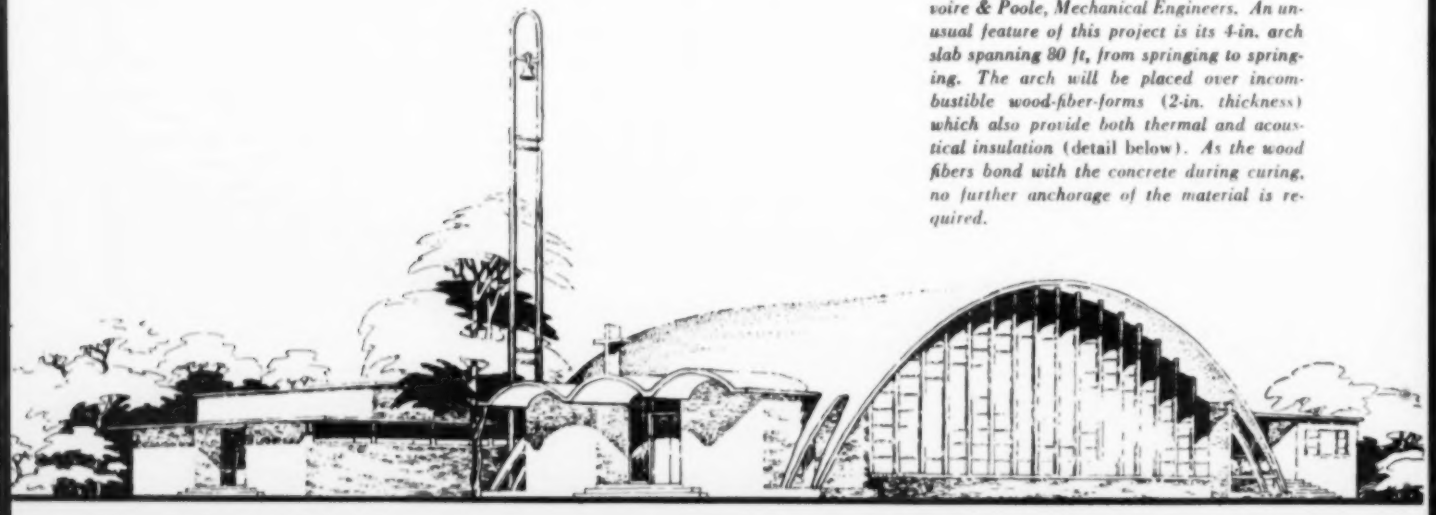
design/techniques 1953: structural methods

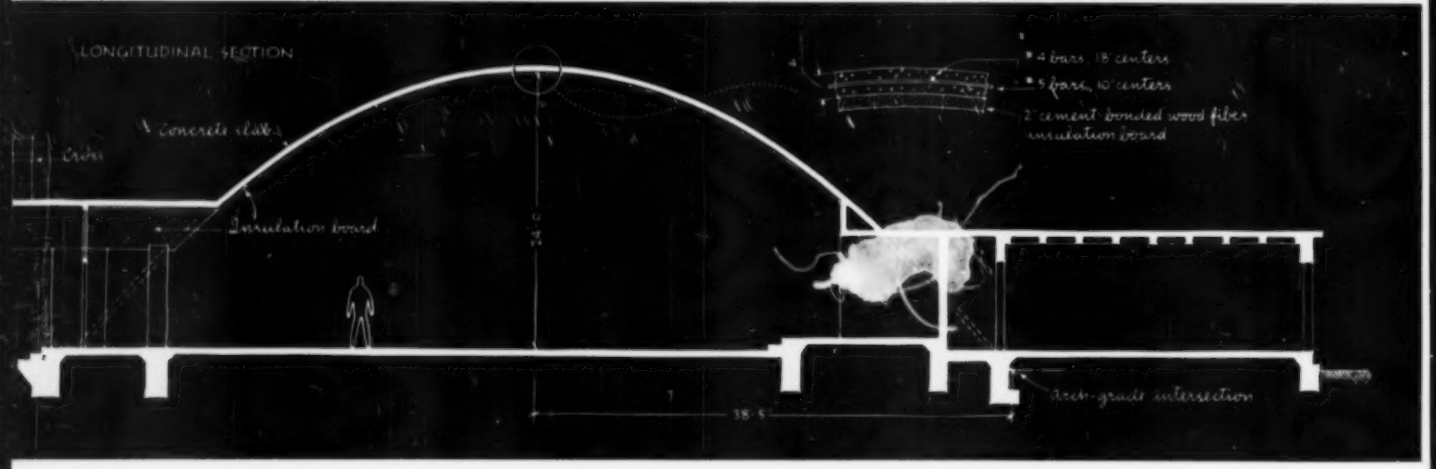


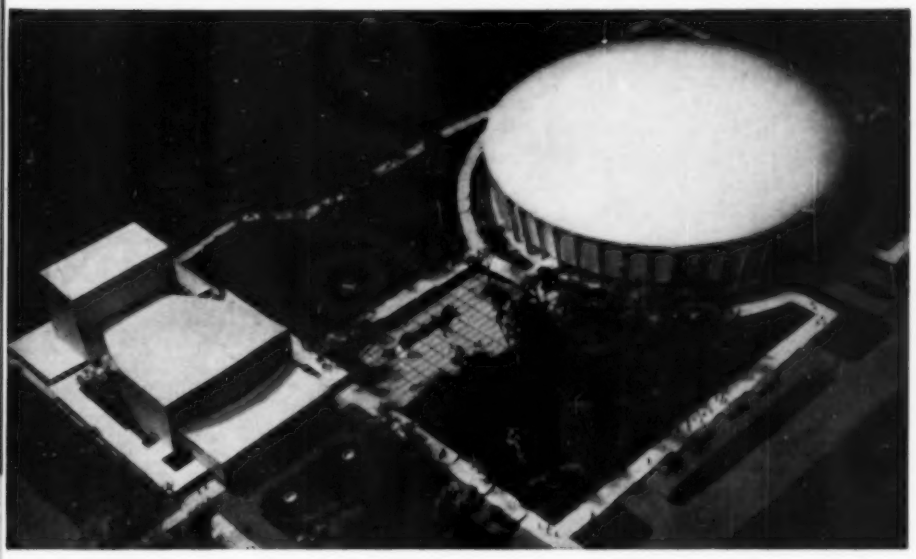


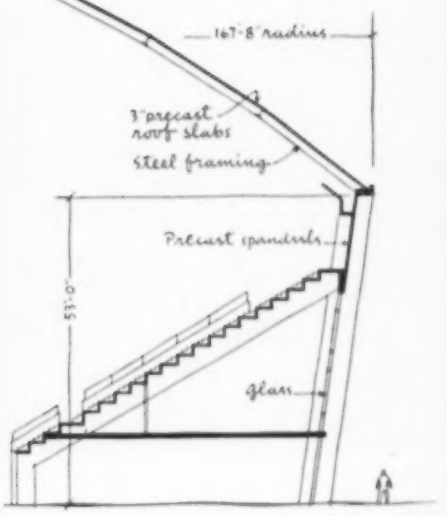
High School, Ketchikan, Alaska (above): *Johnson & Botesch, Architects and Engineers; Peter Hostmark, Structural Engineer. The high cost of concrete construction in Ketchikan does not favor the use of that building material; further, the high rainfall (150 in. per year) would have made the formwork and other on-site work not only expensive but also drawn-out. Therefore, it was decided to use a structural steel framework with insulated-aluminum-panel curtain walls.*

Hellenic Eastern Orthodox Church, Galveston, Texas (below): *Thomas M. Price, Architect; R. L. Reid, Structural Engineer; Revoire & Poole, Mechanical Engineers. An unusual feature of this project is its 4-in. arch slab spanning 80 ft, from springing to springing. The arch will be placed over incombustible wood-fiber-forms (2-in. thickness) which also provide both thermal and acoustical insulation* (detail below). *As the wood fibers bond with the concrete during curing, no further anchorage of the material is required.*

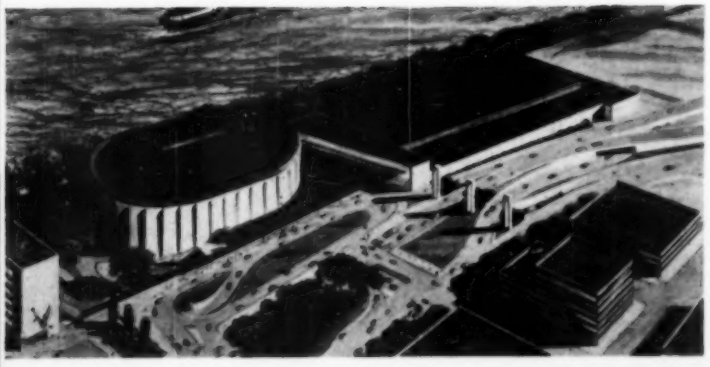




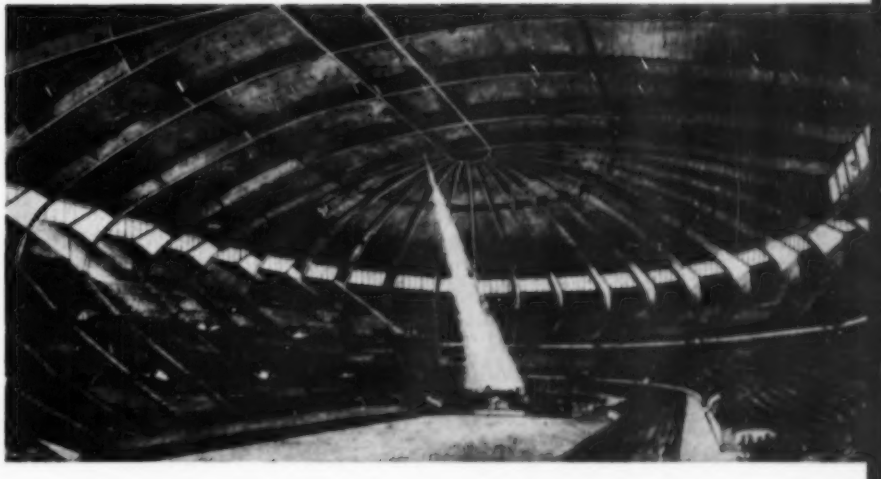




Auditorium and Coliseum, Charlotte, North Carolina (above, left and right): *A. G. Odell Jr. & Associates, Architects and Engineers; Severud-Elstad-Krueger, Consulting Engineers. The Auditorium and Coliseum are physically separated, in order to isolate their respective noises and traffic as well as to provide space for a future exhibition hall and meeting rooms in a building connecting the two structures. Considered the most economical roof framing as well as enclosing a greater sq ft area than any other perimeter, the structural steel dome will span 332 ft 4 in. at extreme diameter. The Coliseum has 10,000 permanent fixed seats, plus portable seats for the main floor which will increase capacity for a boxing match to 13,500 persons. Tilt-up walls will be used for both Auditorium and Coliseum walls.*



Convention Hall, Detroit Civic Center, Detroit, Michigan (above and right): *Giffels & Vallet, Inc., L. Rossetti, Associated Architects and Engineers. Development of the structural design proceeded from the start by the integration of architecture and engineering into a single planning center. Two-hinged, welded-rigid-frames were selected for the roof supports for reasons of economy, savings in depth of steel, and esthetic appearance. To the arch forms that span the width of the convention hall, legs will be added on each side to exploit to the limit the available width of the building and natural rise of the arch—thus the rigid frame takes form and evolves from the arch.*



Three-dimensional Floor System

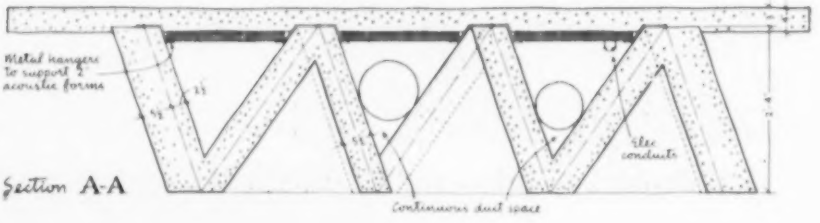
Design Laboratory, Yale University, New Haven, Connecticut: Louis Kahn and Douglas Orr, Associated Architects; Henry A. Pfisterer, Consulting Engineer. Full-scale model of three-dimensional floor-ceiling system undergoes load test (below). *With 215 psf (twice live load) placed on the floor, the measured deflection at center of the 40-ft span was 0.15 in.*

Reflected ceiling plan and cross section (right) *illustrate tetrahedron pattern.*

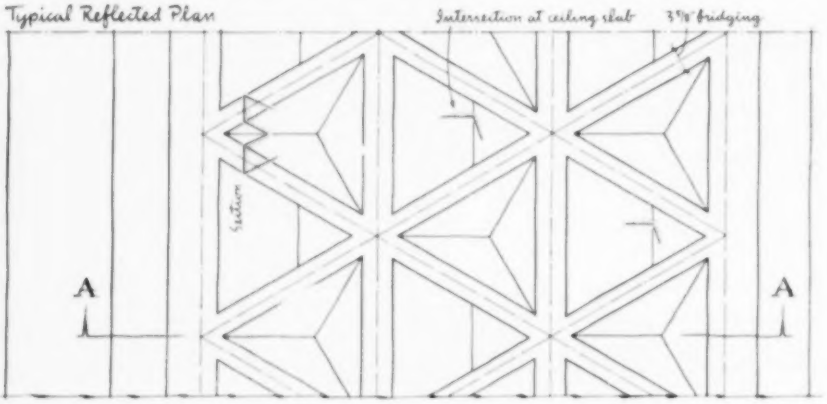
Undoubtedly the most interesting structural innovation of the Yale Design Laboratory Building (an addition to the existing Art Gallery) will be the new three-dimensional floor-ceiling system conceived by Louis Kahn—Philadelphia architect and faculty member of the Department of Architecture at Yale. Kahn's philosophy of structure holds that a building material should be designed to take maximum advantage of all its physical properties. Thus, when all integral elements are capable of working at capacity, the resultant form is the correct expression for a given material. Kahn visualizes a concrete floor-ceiling system for a design laboratory as working most efficiently when cast in a tetrahedron-type design (*reflected ceiling plan and cross section below*). Such a design, which will be constructed for the first time, has already been developed and load tested at New Haven.

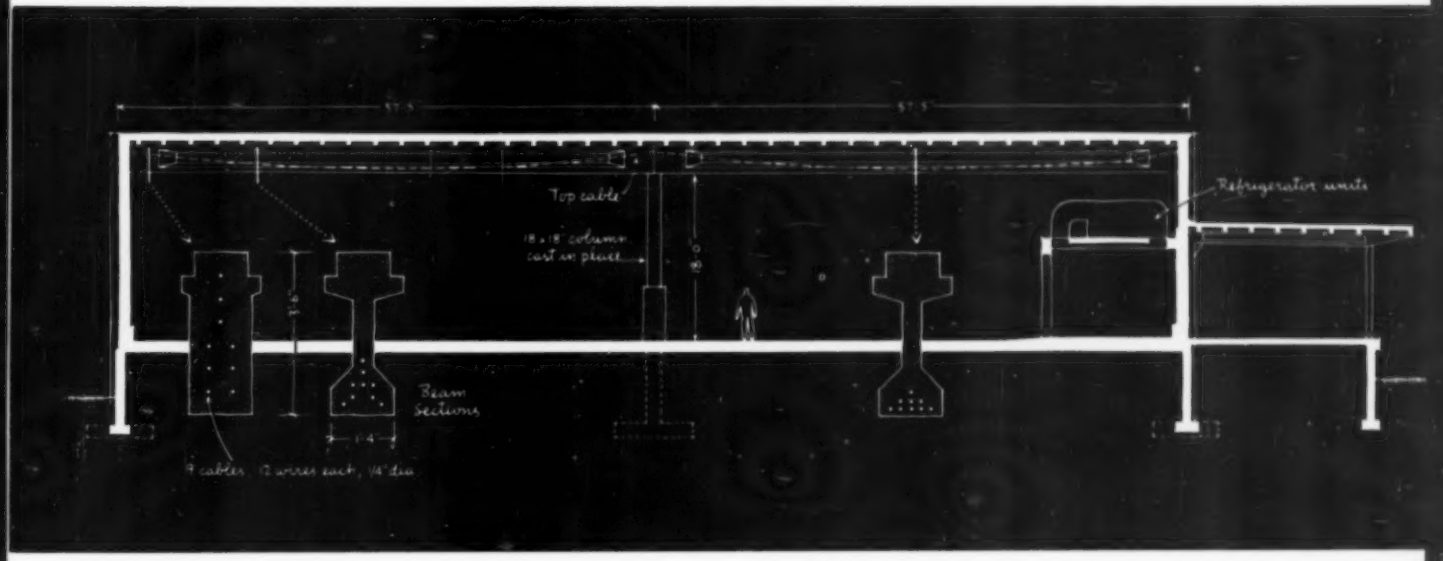
As the local building code requires that some sort of a beam system be used for all floors, an exact translation of Kahn's original conception was not possible and the longitudinal ribs of the tetrahedron design somewhat act as beams. A special full-scale test model of the new span was erected to satisfy the New Haven Building Department that the system would meet minimum safety requirements (*photo, below left*). The design load for the model was: 100 psf live load and 175 psf dead load (including 15 psf for floor surfacing materials). The ribs were poured to a depth of approximately 2 ft 4 in.; over the ribs was placed a 2-in. layer of cement-bonded wood-fiber panels and a 4-in. slab of concrete—the panels bonding automatically with the concrete. The bottom of each primary rib contains a 1¼-in. square bar while a ⅝-in. round was placed in each secondary member of the pattern. 3000 psi concrete was specified for the floor-ceiling and 3750 for the columns. Bags weighted with crushed stone were placed atop the slab until an amount equal to twice the live load had been attained. Although 0.70-in. deflection would have been permissible for the 40-ft span, the actual recorded deflection at the center was only 0.15 in.

Kahn calls this development three-dimensional construction, as the ceiling forms a pattern that is in contrast to the traditional flat-surface type of ceiling. Among its advantages are: all ductwork and conduit can be easily placed within the ceiling without being readily apparent and without effecting the strength of the system whatsoever; lighting elements can be placed in the tetrahedrons so that when viewed from any other location than immediately below, direct light from the source is cut off by the ribs; good acoustical conditions are inherent.



Section A-A

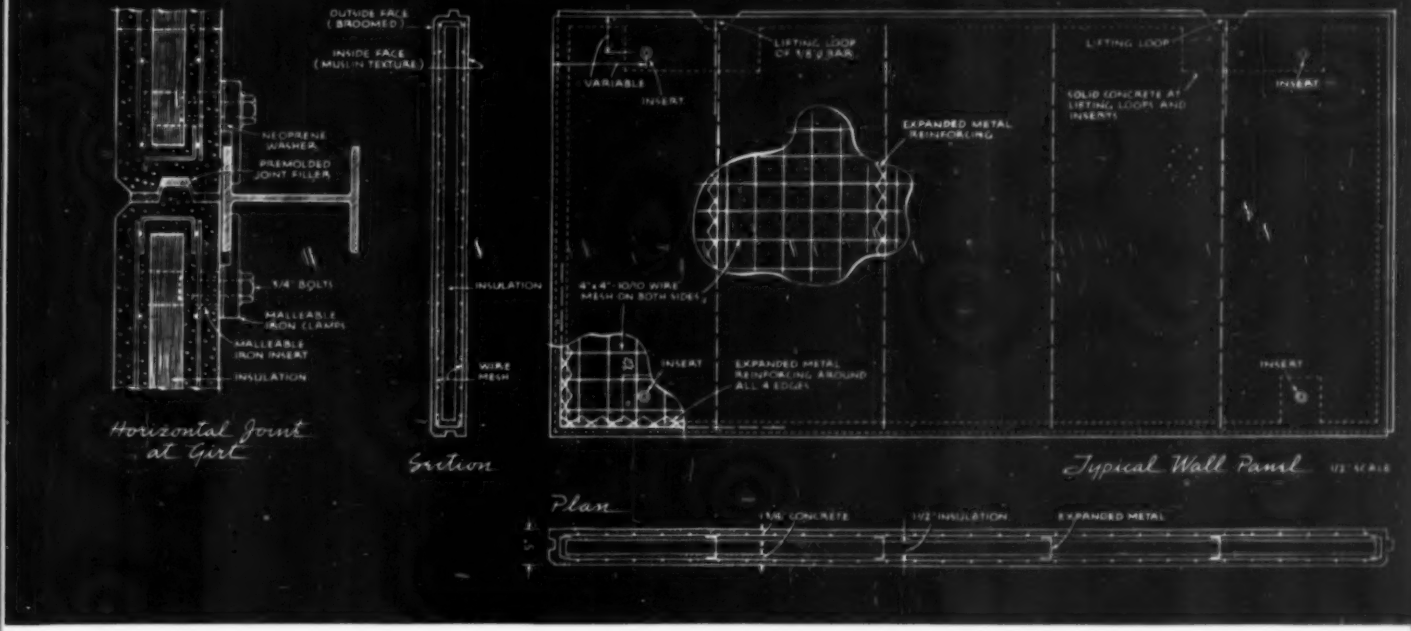


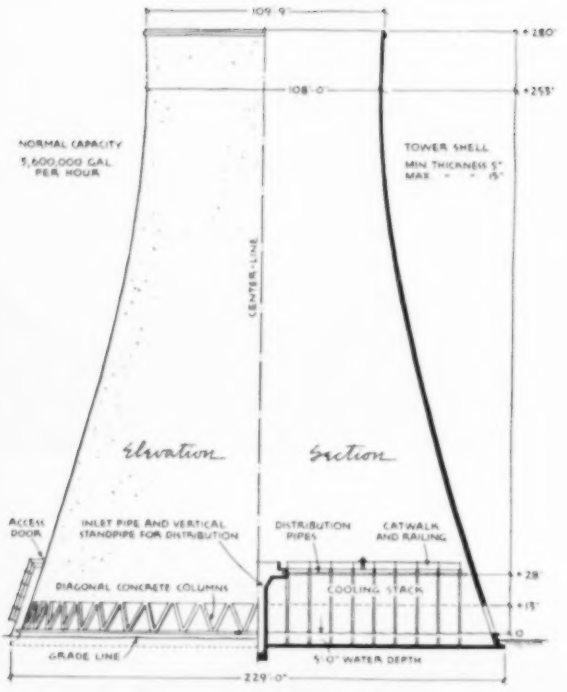


Cold Storage Warehouse, Beatrice Foods Company, Denver, Colorado (above): *Nat S. Sachter, Professional Engineer. Critical requirements in this design were to maintain an 18-ft clear height (for maximum stacking of food products on pallets with fork lift trucks); to minimize the height within the building above the 18-ft clearance (to keep the volume to a minimum and thus reduce refrigerant costs); and to maintain clear span of 57 ft (to reduce waste space around columns). A roof structure of prestressed concrete girders (post-tensioned) and slabs fulfilled all these conditions.*

Peconic River Plant and Facilities, Grumman Aircraft Engineering Corporation, Calverton, Long Island, New York (below): *Walker & Poor, Architects; Seelye Stevenson Value & Knecht, Consulting Engineers. Exterior portions of these curtain walls are of air-entrained concrete in which the entrainment is at least 3½% and not more than 4½%. Combined with glass-fiber insulation the completed 5-in. sandwich has a computed U factor of 0.14 and a computed value of decibel loss in sound transmission of 45.*

Landers Residence, Houston, Texas (below): *Theodore Ahlborn, Consulting Engineer. Walls tilted with simple machinery in five minutes.*

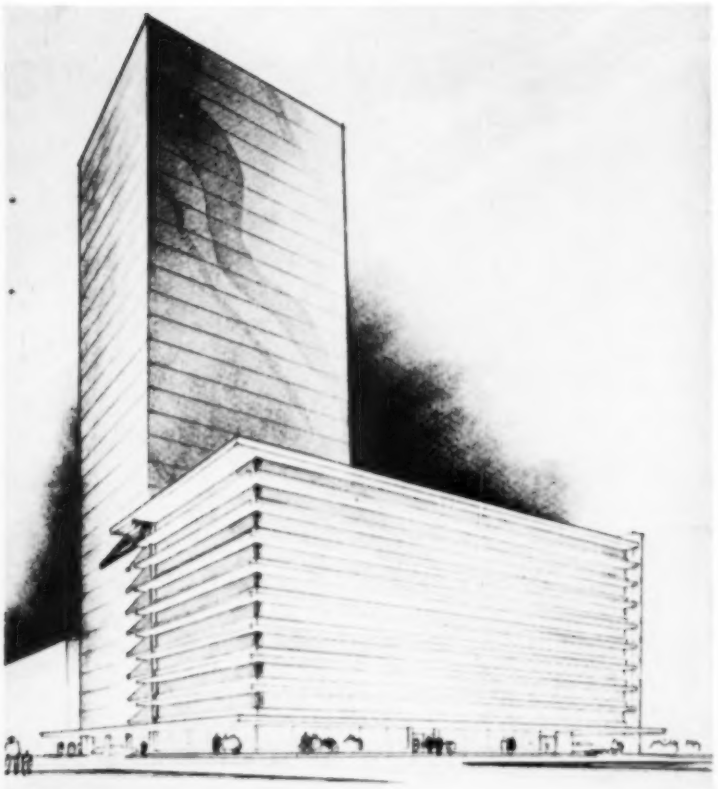




Hyperbolic cooling towers, similar to those located at Keansly, England (above), *will make their appearance in the United States during the coming year. Serious inquiries for such towers have come from certain areas of Texas, Illinois, California, New York, and other states where the water supply is inadequate. Designs have been prepared by L. G. Mouchel & Partners, London, England, and International Technical Enterprises, Inc., Chicago, Illinois.* (Typical section, above right.)

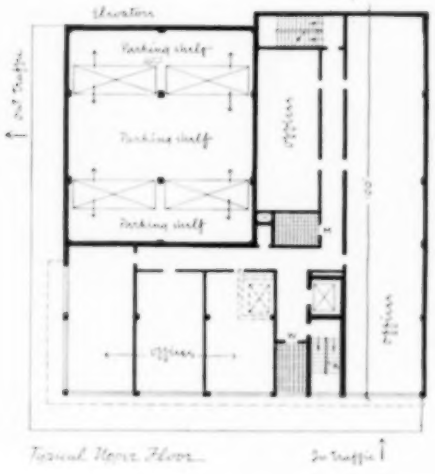
Genuine interest in hyperbolic cooling towers of reinforced concrete is being shown in certain sections of the United States where the water supply needed for the operation of condensers in electric steam-power stations is inadequate. These cooling towers, through their chimney construction, decrease the temperature of circulated water by natural draft and are capable of handling 6- to 8-million gallons per hour. Employed extensively in Europe for the past 30 years, this system for permitting the reuse of circulating water is believed to provide great benefits for power stations, steel plants, refineries, and process industries. Use of such towers makes possible the location of power stations near industries utilizing the produced electric power or near the fuel supply.

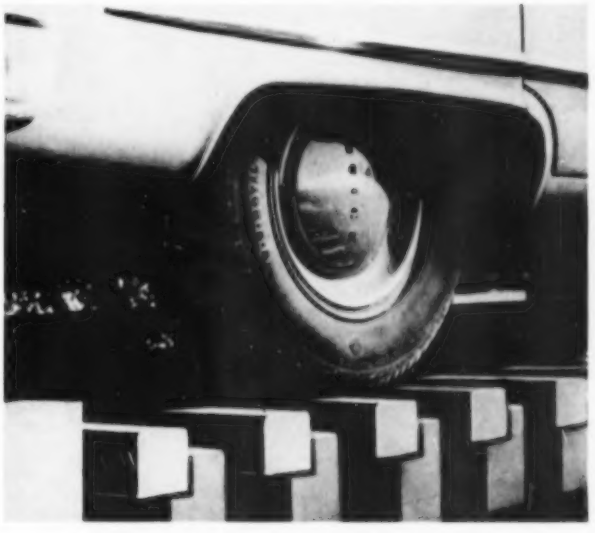
The hot water is pumped to a height of approximately 24 to 28 ft and enters into distributing pipes. The water is then sprayed, through sprinklers, on splashboards and cools as it drips down to the collecting pond at the base of the tower (*photo above*). These cooling towers, built of reinforced concrete thin shell construction and curved in two planes, need little maintenance, and offer strong resistance to gales, tornadoes, and earthquakes.



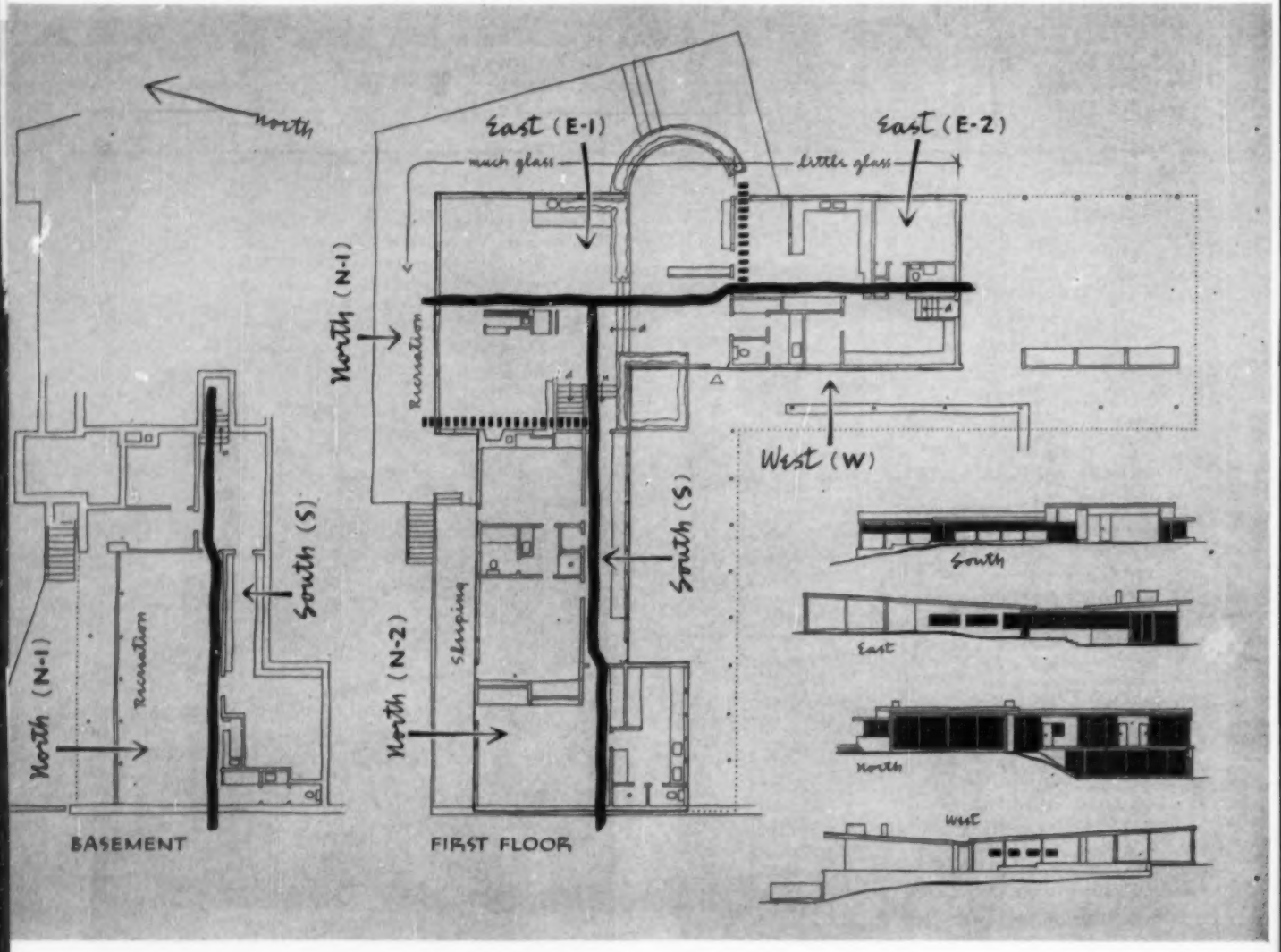
Proposed Parking Garage and Office Building, Houston, Texas (left): *MacKie & Kamrath, Architects. Building to integrate Alkro Parking System perfected jointly by Cornelius Kroll & Company, Engineers, and Michael Alimanestiano, Graduate Engineer. Method of operation: (1) owner drives car into garage, steps out, and (if desired) locks car; (2) attendant pushes button and car is automatically picked up and moved sideways onto an elevator-conveyor; (3) elevator raises car to desired level, then car is moved sideways onto a parking shelf* (see plan, below left).

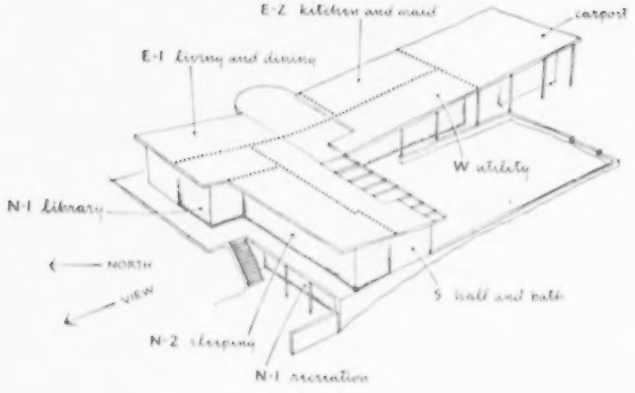
Conveyor can be raised, lowered, or moved to either side of elevator platform. When raised, upper part of conveyor (detail below) *meshes with beams of parking shelf. When lowered, car remains on shelf and conveyor is permitted to return to shaft for descent to ground level.*



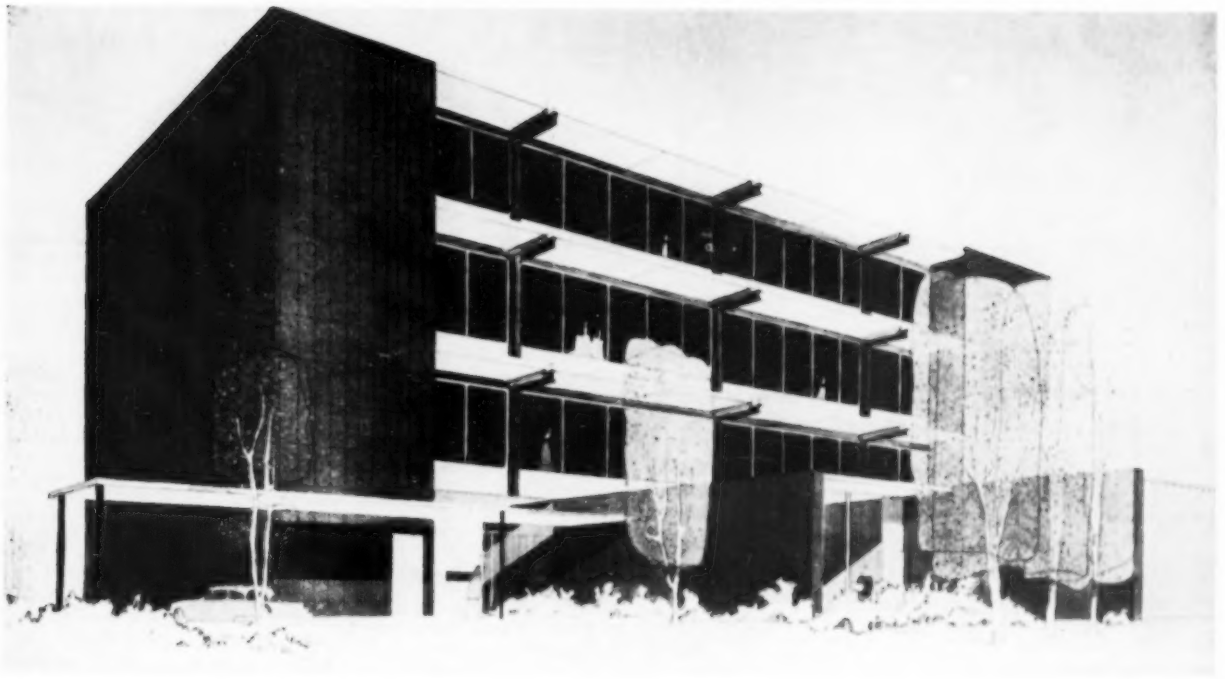


Parking became a problem when conventional facilities could no longer pay their way in high-cost ground areas. MacKie & Kamrath have spent a great deal of effort developing a proposed garage and office building for the Alkro Parking System to be used for those high-cost land areas of various cities throughout the country. The Alkro system is intended to be an integral part of a commercial building and compared with parking garages of the past has the following basic advantages: (1) requires a minimum of ground per automobile; (2) requires a minimum of operating expense—less than half of the operating expense of conventional facilities; (3) eliminates a personnel problem—its entirely automatic operation requires only one cashier and two attendants to co-ordinate all facilities; (4) provides the fastest, most convenient, and most satisfactory service for the car owner.



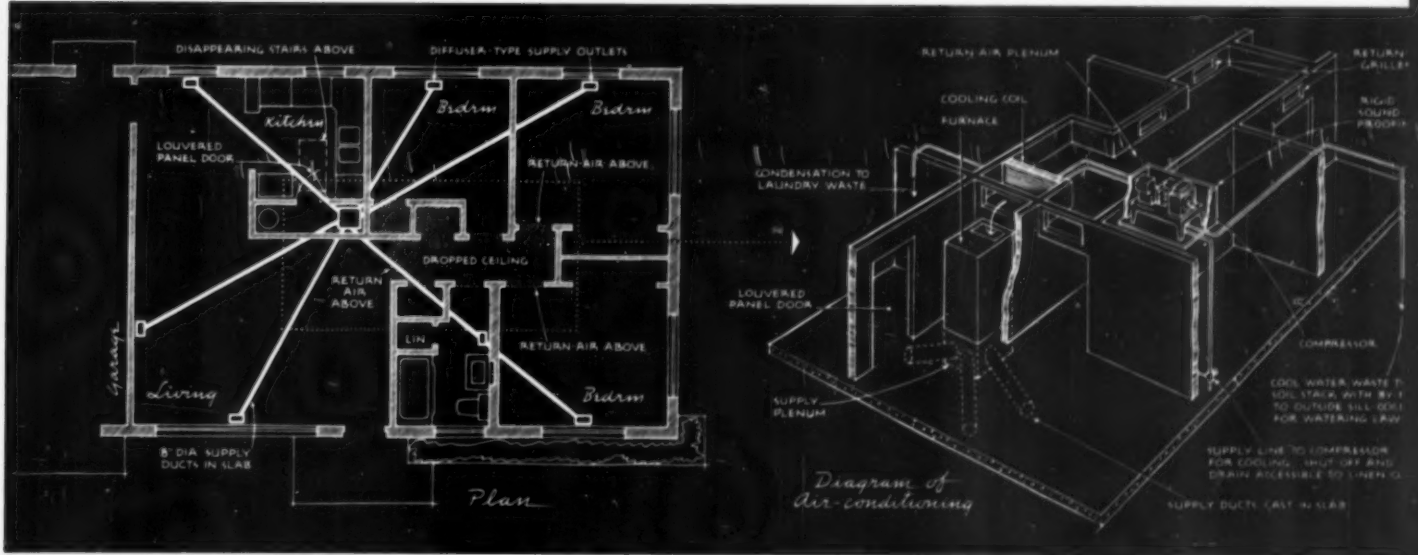


Stulman Residence, Baltimore County, Maryland: Daniel Schwartzman, Architect; McGuinness & Duncan, Engineers. Because of an exceptional north view, that exposure was selected for the principal living areas. It was evident that there should be four major zones. The north zone must operate when out of the sun; motorized valves permit different control of the bedrooms from that of the library-recreation room grouping. The east zone is also divided by similar controls so that the glass-walled dining-living area can operate separately from the small-windowed kitchen-maid area. Limited glass is a characteristic of the south and west zones and each operates as a unit according to the effect of the sun. To avoid cold floors, promote thermal stability, and to create an updraft for combating window condensation, about one third of the output in each room is located in perimeter floor coils.



Medical Clinic, Canton, Ohio (above): *Tuchman & Canute, Architects. This clinic will have year around air conditioning, heating and cooling, by use of a heat-pump system. In the Canton area, there is an extensive underground water supply which remains at a fairly constant temperature of 55 F. For this system two wells will be dug—one to bring water to the system, the other to carry used water back to the source. Heat-loss calculations indicate that the total heating and cooling requirement can be accommodated entirely by the heat pump without booster units.*

Northern Hills Development, Dayton, Ohio (below): *American Construction Corporation, Builders. The application of air conditioning to an existing system will be accomplished by installing the component parts of the conditioner as integral parts of the system. Principal design changes involve an increase of the return-air-grille areas and an increase of the blower capacity in the furnace from a normal rating of about 750 cfm to 1500 cfm. Both changes are necessary to handle the larger volume of air required for the air-cooling system. It will also be necessary to increase the horsepower of the blower motor as well as to utilize a two-speed blower to permit a simple conversion back to a normal heating system.*



pa MANUFACTURERS' LITERATURE

★ *Editors' Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

air and temperature control

1-220. **American-Standard Radiator Heating** (R52), 198-p. hard-bound ★ catalog of radiator heating equipment including boilers, baseboard radiation, radiators, convectors and convector cabinets, conversion units, water heaters. Photos, drawings, dimensions, ratings, construction details of each unit. Complete installation and application data illustrated by tables. American Radiator & Standard Sanitary Corp., Bessemer Bldg., Pittsburgh 30, Pa.

1-221. **Uni-Flo Engineered Air Distribution Products** (F4471-1), 4-p. bulletin on sidewall and ceiling outlets and accessories for air-conditioning or ventilating systems. Description of models, photos. Barber-Colman Co., Air Distribution Div., 150 Loomis, Rockford, Ill.

1-222. **Sterling Baseboard Radiation,** AIA 30-FI (101), 8-p. booklet listing exclusive features of heating unit; design and installation data. Drawings of sheet metal assembly and heating element detail. Sterling Radiator Co., Westfield, Mass.

1-223. **Year 'Round Air Conditioning With One Central Unit** (DH DM 137), 4-p. bulletin describing new automatic residential air-conditioning unit. Advantages, construction data, drawings, photos. Typhoon Air Conditioning Co., Inc., 794 Union St., Brooklyn 15, N.Y.

1-224. **Gas Fired Unit Heaters** (23-2), 4-p. folder illustrating suspended-type gas-fired unit heater. Table of capacities, dimensional drawings of blower and fan types, unit selection suggestions. United States Air Conditioning Corp., 33rd & Como Ave., S.E., Minneapolis 14, Minn.

Bulletin and catalog describing radiation units for industrial and residential heating. General description, engineering data, applications, typical piping layout; cutaways, drawings, photos. Vulcan Radiator Co., 26 Francis Ave., Hartford, Conn.:

1-225. **Vulcan Radiation for Industrial and Residential Heating** (42)

1-226. **Vulcan Radiation,** AIA 30-C-4 (125)

1-227. **Surface Dehumidifiers** (1660), 30-p. brochure on surface dehumidifiers for use in central-plant type, commercial, and industrial air-conditioning systems. Typical applications, special features, typical specifications, selection procedure, direct expansion-coil data, details of construction, and other data illustrated with charts, drawings, tables. Westinghouse Electric Corp., Sturtevant Div., 200 Readville St., Hyde Park, Boston 36, Mass.

construction

3-178. **Armco Special-Purpose Steels** (252 8-52), 12-p. booklet listing grades and finishes of steels, their characteristics, applications, and fabricating properties, data on steel tubing. Tables, photos. Armco Steel Corp., 252 Curtis St., Middletown, Ohio.

3-179. **Ayr-Trap: The Air-Entraining Agent,** 16-p. booklet discussing an air-entraining agent, functions of entrained air in concrete, general description, effects, advantages of the agent. Photos, tables, charts. A. C. Horn Co., Inc., 10 St. & 44 Ave., Long Island City 1, N.Y.

3-180. **Specifications for Carey Built-Up Roofs** (6159), 80-p. manual ★ covering types of roofing including asphalt felt gravel, pitch and felt, pitch and asbestos, asbestos and felt, gravel and smooth, mineral, tile. Specifications, materials, deck surfaces, and application of each with cutaways; flashings and construction detail. The Philip Carey Mfg. Co., Lockland Station, Cincinnati 15, Ohio.

3-181. **You Too Will Like a Concrete Home** (p38), 32-p. brochure in color displaying photos and plans of concrete block homes built in various parts of the country. Advantages of concrete in residential construction. Portland Cement Assn., 33 W. Grand Ave., Chicago 10, Ill.

3-182. **Utility Nailing Channel** (UC-52), 4-p. bulletin describing use and installation of a nailing channel for light suspended-ceiling construction. Construction data on the suspension system, specifications. Drawings, photos. The Sanymetal Products Co., Inc., Suspended Ceilings Div., 2093 E. 19 St., Cleveland 15, Ohio.

Two booklets discussing framing anchors and trussed rafters, respectively. Design and application information with drawings, recommended safe working values of the anchors; uses of trussed rafters in homes, churches, and commercial buildings, special framing with trussed rafters. Timber Engineering Co., 1319 18 St., N.W., Wash. 6, D.C.

3-183. **Architects Aids for Better Homes and Other Wood Construction,** AIA 19-B-5

3-184. **Wood Frame Teco Trussed Rafters,** AIA 19B

3-185. **Unistrut,** AIA 14-G (800), 84-p. pocket catalog of metal framing system. Design load data, typical installations, reference tables. Contents page, photos, diagrams. Unistrut Products Co., 1013 Washington Blvd., Chicago 7, Ill.

doors and windows

4-222. **Andersen Windowalls,** AIA 16L (531), 20-p. catalog describing four types of window units with photos, drawings, cutaways. Specification data, installation details, tables of stock sizes, glass layouts, opening dimensions. Andersen Corp., Bayport, Minn.

4-223. **For Modern Building . . . Bayley,** AIA 16C (APW53), 16-p. booklet covering line of aluminum projected and projected-ribbon windows. Features, sectional drawings, specifications, installation data, full-size details. The William Bayley Co., Springfield, Ohio.

4-224. **Latest Color Style News,** 24-p. brochure illustrating pine paneled doors which can be stained, painted, or decorated with appliques. Styles of doors, decorating ideas, color drawings. Ponderosa Pine Woodwork, 38 S. Dearborn St., Chicago 3, Ill.

Two brochures presenting features of steel frames for sliding glass doorwalls and horizontal sliding windows. General information on models and types, isometric drawings of engineering features and construction details. Installation photos. Steelbilt Inc., 18001 S. Figueroa, Gardena, Calif.

4-225. **Steel Frames for Sliding Glass Doorwalls,** AIA 16-E

4-226. **Horizontal Sliding Windows,** AIA 16-E

4-227. **Air Infiltration Through Weather-stripped and Non-Weather-stripped Windows** (35), 48-p. book-★ let published by the University of Minnesota Institute of Technology. Economic value of weatherstripped windows, par-infiltration and its application, research program, text apparatus, summary of results, conclusion. Illustrated with drawings, photos, charts, tables. Weatherstrip Research Institute, Box 101, Riverside, Ill.

electrical equipment, lighting

5-149. **What You Should Know About Circuit Breakers** (101), 16-p. manual explaining operating principles of basic circuit breaker designs and providing engineering data on application factors. Colored charts and diagrams. Heinemann Electric Co., 496 Plum St., Trenton 2, N.J.

5-150. **Church and Public Building Lighting,** AIA 31-F-2, booklet illustrating Gothic, Romanesque, Colonial, Georgian, and Modern styles of lighting brackets. Standard specifications, finishes, glass; drawings, color photos. R. A. Manning Assoc., Box 643, Sheboygan, Wisc.

5-151. **Standard Specifications for Industrial Lighting Units,** AIA 31-F-233, 46-p. revised booklet containing detailed specifications for 18 of the most commonly employed incandescent and fluorescent industrial lighting units. Index, tables. RLM Standards

Institute, Inc., 326 W. Madison St., Chicago 6, Ill.

finishers and protectors

6-85. **Protection for Aluminum** (690A), 6-p. folder giving general information about a coating that protects both painted and unpainted aluminum; applied by brush or spray process. Chemicals and equipment required, five steps in applying the coating, advantages of its use. American Chemical Paint Co., Box 301, Ambler, Pa.

6-86. **The Key to Gymnasium Floor Finishing,** AIA 25G (735452), 6-p. bulletin containing data on the proper finishing and care of gym floors, correct use of wood sealers and maintenance products, official rules affecting the painting of basketball court lines. Specification table of floor finishing products, diagrams, drawings. Huntington Laboratories, Inc., 968 E. Tipton Ave., Huntington, Ind.

sanitation, water supply, plumbing

19-318. **Uni-Built** (ET-452), 12-p. brochure containing detailed information on a series of centrifugal pumps and featuring new leakproof mechanical seal which eliminates leakage occurring when conventional packing glands are used. List of construction materials with cutaway, selection tables, dimensions, installation, operation, and parts list. Bell & Gossett Co., 8200 N. Austin Ave., Morton Grove, Ill.

19-319. **Automatic Controls for Gas Water Heaters** (SA 2021), 16-p. catalog describing three models of controls for domestic hot-water heaters. General description, specifications, installation data, lighting instructions, service and adjustment information, temperature setting, parts list of each model. Drawings, photos. Minneapolis-Honeywell Regulator Co., Appliance Controls Div., 8775 Mettler St., Los Angeles, Calif.

19-320. **Root-Proof Pipe and Fittings** (306), 12-p. booklet covering properties of nonmetallic sewer pipe and fittings. Description of manufacturing process, advantages, specifications of fittings, drawings. Orangeburg Mfg. Co., Inc., Orangeburg, N.Y.

19-321. **Thesco Equipment** (352), 56-p. refrigeration catalog for architects containing specifications and prices for all types of refrigeration equipment used in commercial kitchens including walk-in, reach-in, normal, low-temperature refrigerators; also storage refrigerator for flake and cube ice. Photos, cutaways, drawings. The C. Schmidt Co., 1712 John St., Cincinnati 14, Ohio.

19-322. **Hot-Water Temperature Control,** 2-p. bulletin discussing methods of supplying hot water to occupants of apartment houses, hotels, and office buildings, procedures and equipment that may be used to maintain temperature of water in proper range; drawings. Water Service Laboratories, Inc., 423 W. 126 St., New York 27, N.Y.

19-323. **Electric Water Cooler** (2WC-0610), 4-p. folder. Construction and design specifications of water cooler with built-in storage and freezing compartment. Dimensional drawings, photos. Westinghouse Electric Corp., Electric Appliance Div., Springfield 2, Mass.

specialized equipment

★ 19-324. **Planning the X-Ray Processing Facilities and Equipment,** 90-p. booklet of compiled data to assist architects and hospital personnel in planning X-ray processing facilities and equipment. Covers planning general layout, light-tight entrances, electric wiring, ventilation, floor- and wall-covering, illumination, construction of loading bench, design, materials, installation, plumbing, temperature control for X-ray processing tanks. Medical X-Ray Sales Div., Eastman Kodak Co., 343 State St., Rochester 4, N.Y.

19-325. **Everything for the Theatre,** 48-p. catalog describing uses and illustrating materials of theatrical equipment and supplies, including rigging and light equipment, draperies and curtains. Price lists, drawings. Theatre Production Service, 1430 Broadway, New York 18, N.Y.

surfacing materials

19-326. **Vinyl-Cork Tile** (53), 8-p. revised catalog describing floor covering combining advantages of both cork and vinyl, for use in residential and commercial buildings. Uses, installation specifications, directions for care and maintenance; color chart, design data, comparison table of test results. Photos. Dodge Cork Co., Inc., Monroe & Laurel Sts., Lancaster, Pa.

19-327. **Federal Specification: Tile, Floor, Asphalt** (SS-T-306b), 10-p. booklet containing specification for asphalt floor tile superseding Federal Specification SS-T-306a in effect since 1943. Approved for use of all Federal agencies. Tables, photos. Superintendent of Documents, Government Printing Office, Washington 25, D.C. (5 cents per copy; send directly to Government Printing Office.)

vertical traffic

20-12. **Dumbwaiter and Elevator Catalog,** revised 9-p. catalog containing illustrations and descriptions of electric and manually operated dumbwaiters, dumbwaiter doors, elevators, residence lifts, stair travelors. Dumbwaiter specifications, dimensioned layouts for electric and manual dumbwaiters and electric sidewalk elevators. Sedgewick Machine Works, Inc., 90 Eighth Ave., New York 11, N.Y.

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4-222	4-223	4-224	4-225	4-226	4-227	5-149	5-150
5-151	6-85	6-86	19-318	19-319	19-320	19-321	19-322
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1/53

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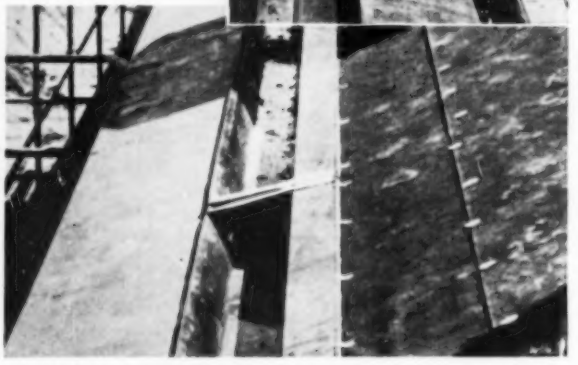

CLOSE-UP OF EXPANSION JOINT before capping. Joints were placed 24 ft. apart. The facia copper leading from the upper, outer edge of the gutter over the masonry cornice, was 16 oz. Revere Lead Coated Copper. 68,000 lbs. of Revere Copper was used on the entire Quadrangle project of 7 buildings. Architect—Mark Lemmon. Gen. Cont.—Henger Construction Co. Sheet metal contractor—American Sheet Metal Co. Revere Copper furnished by Moncrief-Lenoir Mfg. Co., all of Dallas, Texas.

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P/A is happy to introduce this new column, dealing both lightly and seriously with the subject of specification writing. PROGRESSIVE ARCHITECTURE *has always been interested in the architect's specification problems, and Ben John Small has written more on the subject than anyone we know of. An associate in the office of Alfred Hopkins & Associates, he is co-author of* Architectural Practice *and author of* Streamlined Specifications Standards, *Reinhold books.*

insulation

The Partner said to the Associate, "Ben, on with the heavy long Johns and up you go to Greenland to see how your specifications are surviving." He was referring to Thule Air Base, 900 miles from the North Pole, over which the office has seethed with activity since January 1951. Before one could issue an addendum I had traversed the 2400 miles northeast from New York and found myself talking to a cold, irritable, tough field superintendent who was putting his hastily erected temporary shanty in order. The shanty served as office and bedroom. It was 20° F above

zero. Conditioned by recent investigations of insulations, caulking compound, gaskets, vapor barriers, and other problems of creating shelter in low temperature areas, I asked him what was the "U" of the walls. He shrugged his shoulders negatively. How about the "k" value of the insulation. Another negative shrug. What *was* the insulation material, I pressed. After a long pause he replied, "If you promise not to tell the guy who wrote it you may be interested to know that crumpled specification sheets work just fine!" I have heard of many uses for specifications, but never as a building material—even in a temporary shanty.

chemistry lesson

In searching for a caulking compound suitable for the prefabricated structures at Thule Air Base, one was found that seemingly met all requirements of flexibility, adhesiveness, potential longevity, nonshrinking characteristics, and so on. Since the use of proprietary names is frowned upon in governmental projects I asked the manufacturer to suggest a general description that would permit broad competition. He suggested "Saturated long chain synthetic hydrocarbon polymer" which I used. Some weeks later a chemist friend of mine telephoned to inquire what we planned to do with thirty thousand gallons of vaseline! He later explained that had not the word "synthetic" been included someone's face would have been quite red.

bible story

In designing low temperature structures one must never be caught with his vapor barrier on the wrong side. We had been studying, analyzing, checking, testing, and philosophizing about vapor barriers until we were conversant with the "perm" of dozens of them including pitch. Vapor barriers are relatively new in construction, at least that was my impression until the Bible proved otherwise. In Genesis 6 is stated, "Make thee an ark of gopher wood; rooms shall thou make in the ark, and shalt pitch it within and without with pitch."

etaoin shrdlu

Typographical errors in specifications are often serious and sometimes humorous. In a recent food service specification I was describing a double food warmer which was to be furnished with "two metal corrosion-resisting *ladles*" which appeared in

the specifications as "two metal corrosion-resisting *ladies*." The Contractor submitted a cut from the manufacturer of the food warmer which showed a photograph of the specified unit and, by some rare coincidence, two charming young ladies, smiling engagingly and pointing to the warmer. Our shop drawing checker dutifully marked the ladies "N.I.C." (Not In Contract).

specification exhibit

Walking through the architectural exhibits at the American Hospital Association Convention held in Philadelphia, Pa., last September, I wondered about the specifications story behind the completed buildings. How many specifications were as well written as the drawings were drawn? How many were clear, concise, comprehensive? How many can be accused justifiably of contributing to the increased cost of the structures because of ambiguity, conflicts, disregard of local construction practices, excessive testing requirements, unnecessary exclusion of product competition. How many specifications were started too soon or, worse yet, too late? How many specifications reflect muddy thinking with regards to matters properly drawn or scheduled on the drawings and not specified? For example, a door mirror was indicated by dimension on the drawings as 5'0" high. The 5'0" figure was repeated in the specifications. In the transition from manuscript to printed specification it appeared erroneously as 50". A needless conflict was created.

dilemma

A free lance specification writer friend of mine was bemoaning his fate the other day. He is no longer certain what a specification is. His clients ask him for a bank-type specification (good enough for mortgage purposes), a public-works-type specification (good enough to withstand the critical onslaught of the reviewers), a lightweight-type specification (a psychological device to encourage low bidding), a heavyweight-type specification (to impress clients that the fee is hard earned), a blanket-type specification (we do little detailing here—you cover it).

architect's graveyard

At the last A.I.A. convention in New York during a joint A.I.A.-C.S.I. (Construction Specifications Institute) meeting a prominent architect with 40 years experience described his recent downfall. His fatal mistake was to take his sons in practice with him. First they took his board away from him on the grounds his stuff was not sufficiently contemporary. After a series of similar demotions they reluctantly gave him a desk with a specification assignment. He hopes fervently he will make good.

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auditoriums

Interior design of auditoriums encompasses four main elements—acoustics, lighting, seating, and decoration—and the success of the job depends on the quality of these elements. Probably most important is the attention to acoustical properties. Sound must be carried from the source so that it is heard well in any part of the auditorium, without "dead" spots or distracting echoes. Often the attention to acoustics also contributes a great deal to the effectiveness of the design. Ceilings may be dramatic creations and all fabrics and materials used to aid the acoustics can just as easily be well designed.

Sometimes there is a combination of daylight and artificial light, but both must be controllable for various activities—many of which require complete blacking out. The lighting fixtures may be an important part of the design, or the lighting may be completely concealed, with equal effectiveness.

The decoration of auditoriums is a little different from decoration of many other rooms. It must be interesting enough to arouse imagination when the stage is empty; yet not so overpowering that it detracts from the action when the stage is in use. It should play the supporting role, rather than being the star. Everything, both decoratively and structurally, should help to lead the eye toward the stage.

Seating, of course, should be comfortable and arranged for good vision. There should be enough space around the seating to permit ease of audience movement.

On the following pages are shown examples which well demonstrate effective handling of these four elements. The auditorium of the Fitchburg Youth Library has been planned to accommodate many different activities, and even several activities at one time (a sliding panel will be installed to divide the room). An entrance has been provided, so that activities need not disturb the adjacent library. What a magnificent ceiling—both functional and attractive—made of sweeping fins of oak batten! Here the adornments of the room are the lighting fixtures and the curtain decoration. The designers have relied on the beauty of the materials in their natural colorings. The auditorium of the Fine Arts Building of the University of Arkansas, could not be a handsomer setting for any production. The seating space is luxuriously ample. In fact, all the elements—the hidden cove lighting, the wall sculpture, the structural lines, and the stage curtaining—contribute to the creation of an extremely attractive and efficient theater.

There was a very definite budget consideration in the Speech Room of the Birmingham High School, nevertheless a pleasant and highly satisfactory result has been produced. The physical set-up is not extraordinary, but an adroit use of material and color have kept it from the realm of the everyday. All colors are carefully co-ordinated so that they are an integral part of the whole, and the wall murals repeat each of the colors in the room. Our fourth example, the auditorium of the Peter Thacher Junior High School, in Attleboro, is especially knowing in its reliance for design on the natural color and texture of materials. And the shape of each element—for example, the acoustic panel—is, as all good design is, right for its purpose and pleasant to the eye.

auditoriums

curtain decoration

window wall

Dutch linoleum

Continental seating

location	Fitchburg Youth Library, Fitchburg, Massachusetts
architects	Carl Koch & Associates*

* *Frederick L. Day, Jr., Leon Lipshutz*

oak-batten fins

data

cabinet work

Lectern: designed by Carl Koch/ fabricated by H. V. Lindberg, Gen'l. Contractor, 90 Electric St., Fitchburg, Mass.

doors and windows

Doors: built-up metal-clad/ Pratt & Forrest, Lowell, Mass.

Hardware: Independent Lock Co., Fitchburgh, Mass.

Windows: Hopkins projecting sash/ Hope's Window, Inc., Jamestown, N. Y.

Glass: "Twindow"/ Pittsburgh Plate Glass Co., 2108-A Grant Bldg., Pittsburgh 19, Pa.

Shades: installed by John C. Perry Co., 343 Belgrave Ave., Roslindale, Mass.

equipment

Radio, television, and music producing equipment: Hi-Par Products Co., Fitchburg, Mass.

furniture and furnishings

Seating: #TC700/ blue-grey #122 enamel-finish on metal, natural-birch armrests/ Heywood - Wakefield, 174 Portland St., Boston, Mass.

Upholstery: seats, Redo vinylite plastic-coated fabric, color #109 green/ Goodall Fabrics Inc., 525 Madison Ave., New York, N. Y.

Curtain: designed by Gyorgy Kepes/ sewn and hung by C. B. Swift & Co., 132 Newbury St., Boston, Mass.

lighting

Downlights: #388/ **footlights;** #811M/ **border lights:** #411/ **floodlights:** #1590 Lekolite/ Century Lighting Inc., 419 W. 55 St., New York, N. Y.

walls, ceiling, flooring

Sidewall: Harvard antique Gonic brick (waterstruck)/ New England Brick Co., Boston, Mass.

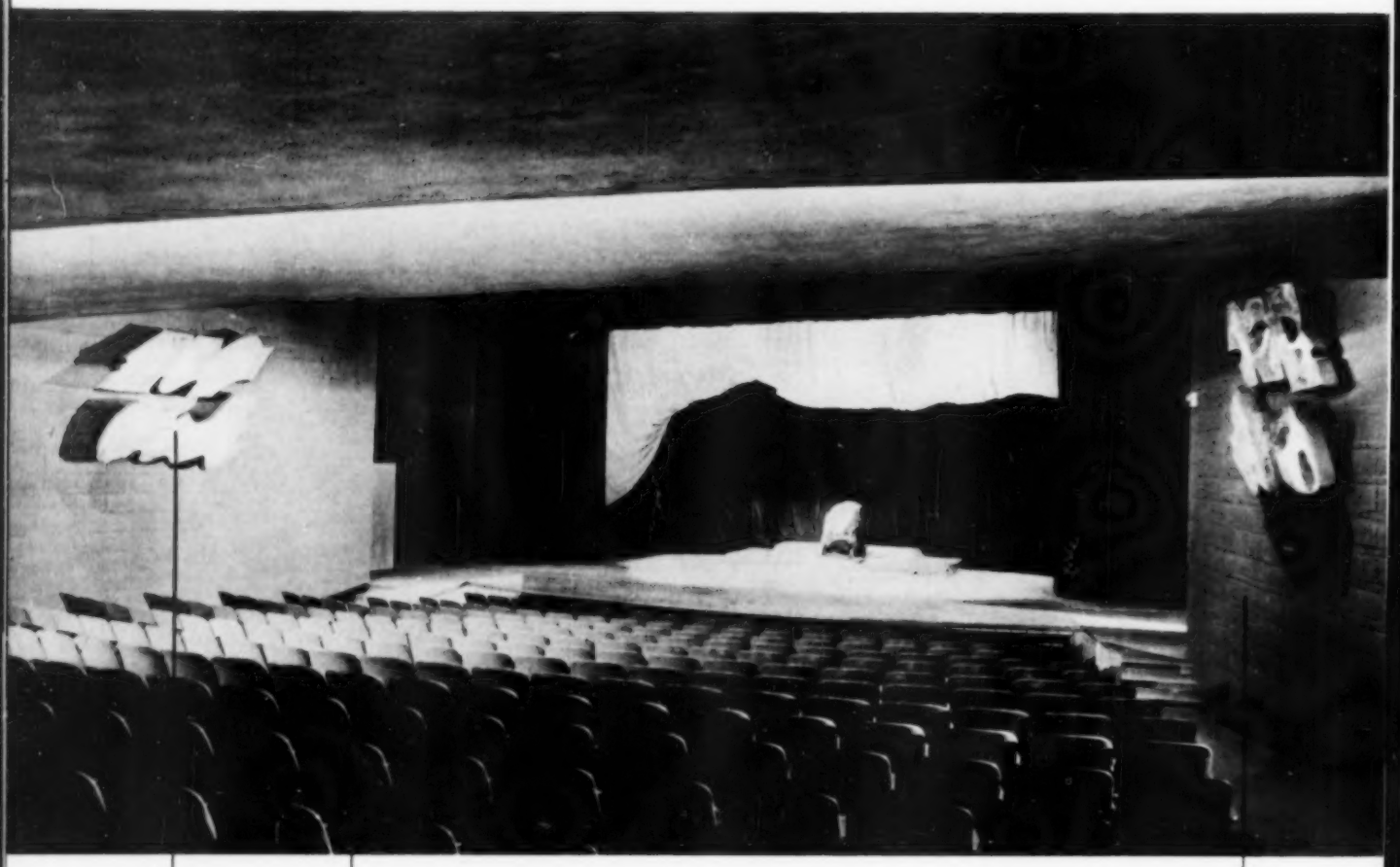
Rear wall and ceiling: oak batten on Masonite/ fiberglas sound absorption/ installed by H. V. Lindberg, Gen'l. Contractor.

Flooring: Velvet-lino cork carpet/ Linoleum Krommenie, Holland.

Connected to an unusually attractive library with garden reading room for children, this auditorium is used mainly for library activities. It is equipped to seat 200, but is divisible to accommodate smaller groups for story hours, music, and other activities. The glass wall and doors in the lower section of the auditorium look onto the garden. Besides making a spectacularly handsome ceiling, the shaped oak battens serve as fine acoustical aids by diffusing and directing sound waves. The entire color of this room depends upon the natural coloring of the materials used. To make the effect completely successful, the curtain decoration is equally good with curtains drawn or closed.

Photos: Ezra Stoller

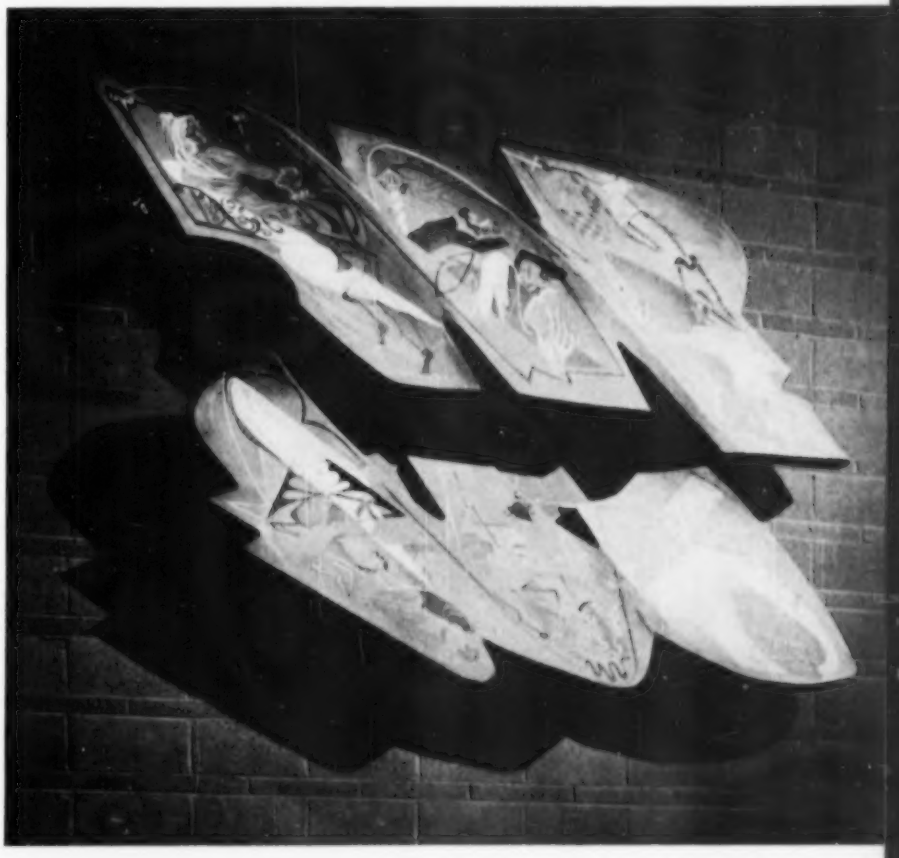
auditoriums



A feeling of drama has been created in this auditorium without any action on the stage. Contributing to this effect is the physical layout—the wall sculptures, the lighting, and the Continental seating—which leads the eye toward the stage. There are no distracting aisles, yet there is a generous space between the rows of seats to permit ease of movement to and from seats and to contribute to seating comfort. The simplicity of surfaces—ceiling, wall, and floor also add to the mood and atmosphere. Here is an auditorium with a definite personality.

Photos: Lionel Freedman

location	Fine Arts Building, University of Arkansas, Fayetteville, Arkansas
architects	Edward D. Stone and Haralson & Mott
theater consultants	Norman Bel Geddes, Edward C. Cole



data

• furniture and furnishings

Seating: special design, combination of elements of several styles.

Upholstery: #60-F, long-pile mohair/ American Seating Co., Ninth & Broadway, Grand Rapids 2, Mich.

• lighting

Fluorescent concealed cove lighting: Ledlin Lighting Inc., 49 Elizabeth St., New York, N. Y.

• murals, sculpture

Plaster sculpture: designed by Gwen Lux/ scenes from Shakespeare's plays.

• walls, ceiling, flooring

Walls: exposed haydite.

Ceiling: acoustic plaster.

Flooring: asphalt tile/ David E. Kennedy Inc., 58 Second Ave., Brooklyn, N. Y.

concealed cove lighting

p/a interior design data

auditoriums

location | Speech Room, Birmingham High School, Birmingham, Michigan

architects | Swanson Associates

interiors | Pipsan S. Swanson

acoustic ceiling

recessed lighting

wall murals

Murals on plaster carry all of the colors used in the rest of the Speech Room of the Birmingham High School; the blue of the painted cinder-block walls and fabric on the seats, the gray of the flooring, the beige of the chair frames and cyclorama, and the apricot of the stage curtain lining. What a difference this makes in the room! Yet it is not too overwhelming in strength or coloring. An auditorium must be interesting to the eye when there is no action on the stage, yet be only background when the action takes place. This room meets these requirements with ease.

Photo: Richard Shark

data

furniture and furnishings

Seating: #16-001-286/ American Bodiform chairs/ beige enamel on metal.

Upholstery: blue-striped Normandy mohair/ American Seating Co., Ninth & Broadway, Grand Rapids 2, Mich.

Curtain: #1/ beige flameproofed Spotlite Repp/ Mark-Green Studios, 243 W. Congress, Detroit 26, Mich./

facing: #25470/ rayon-and-cotton texture, apricot color/ Lussky, White & Coolidge, Inc., 216 W. Monroe St., Chicago, Ill.

lighting

Ceiling fixtures: #816/ recessed circular concentric louver/ adjustable spot with color filters/ #508L/ Litecraft Mfg. Co., 135 Rome St., Newark 5, N. J.

murals, sculpture

Murals: on plaster/ designed by Martha McClintock, Grosse Point, Mich./ off-white ground with blues, greys, beige, brown, apricot.

walls, ceiling, flooring

Walls: cinder block/ Boice Bros. Builders Supply, Pontiac, Mich.

Ceiling: acoustic tile/ ¾" 12 x 12 perforated fiberglas, Owens-Corning Fiberglas Corp., Toledo, Ohio.

Flooring: stage: edge-grain maple/ Whitcombe-Bauer Co., 1031 Lyndon, Detroit, Mich./ **auditorium:** "Vinatread," mottled grey Revere-pattern plastic tile/ Southbridge Plastics, 470 Fourth Ave., New York, N. Y.

location | Peter Thacher Junior High School, Attleboro, Massachusetts

architects | The Architects Collaborative

data

• furniture and furnishings

Seating: #TC705 "Aristocrat"/ back and seat, natural-birch finish/ end standards, blue-grey enamel on metal/ Heywood-Wakefield, 174 Portland St., Boston, Mass.

Curtain fabric: #14207, color #5 blue/ contemporary tweed/ Cheney Bros., 509 Madison Ave., New York, N. Y.

Cyclorama: #10809/ heavy rib twill/ natural color/ Cheney Bros.

• lighting

Hung fixtures: 3' dia./ Gotham Lighting Corp., 37-01 31 St., Long Island City, N. Y.

Fluorescent: side wall, continuous strips behind plywood panels/ Gotham Lighting Corp.

• walls, ceiling, flooring

Side walls: painted concrete block/ California Stucco Co., Cambridge, Mass.

Rear wall: cypress siding/ board-and-batten detail.

Acoustic tile panel: Pitcher & Co., 67 Rogers St., Cambridge, Mass.

Flooring: concrete/ **stage floor**: oak/ **aisles**: cork/ Armstrong Cork Co., 1010 Concord St., Lancaster, Pa.

Designed to be used during the day for visual aids programs and to accommodate the entire school enrollment, this auditorium is without windows, to avoid the ever-present problem of blacking-out. Materials were chosen for their simplicity and durability, and, as is immediately obvious to the eye, the room has successfully integrated function and attractiveness. Concrete block walls and metal seat frames are painted gray-blue, ceiling is white, plywood panels (which diffuse light on side walls) and chair seats and backs are natural birch finish. The front and back walls are of natural cypress. With all the simplicity of design, there is still a wonderful feeling of texture in the materials used. *Photo: Pictorial Services, Inc.*

Why Carrara Glass

is the preferred material for washrooms, walls and partitions

• The quality of Carrara Structural Glass is outstanding. Every piece is mechanically ground and polished. It permits joints that are true and even, without lippage or warpage.

Carrara's smooth, homogeneous surface is unaffected by moisture, soap, damp atmospheres and pencil marks. It won't absorb odors.

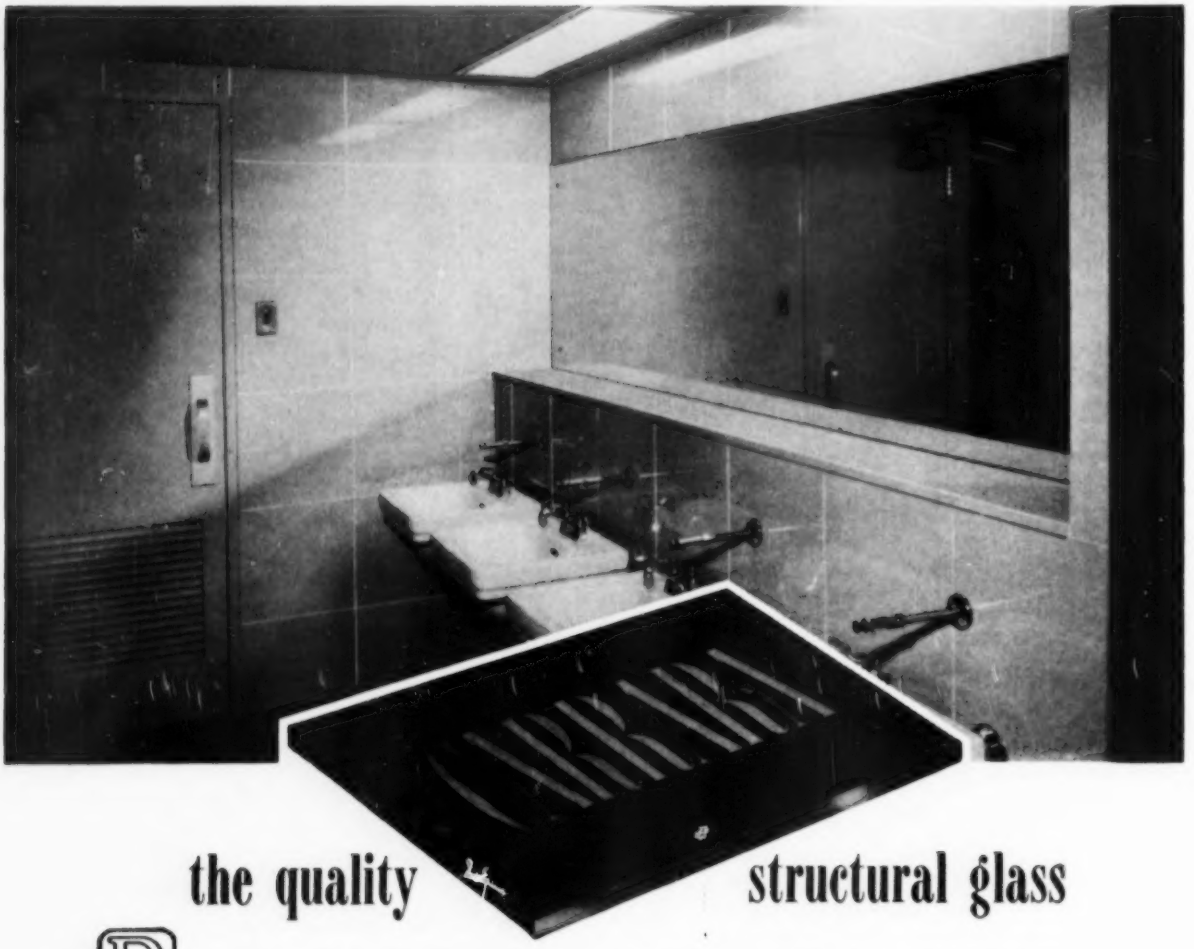
The finish of Carrara Glass is permanent. It won't check, craze, stain or fade.

Carrara Glass is sanitary . . . and easy to keep clean. It is installed in large sections with fewer joints and crevices to catch dust and dirt.

The versatility of Carrara Glass . . . its ten glowing colors . . . makes it adaptable to any number of design possibilities. Many of America's most famous buildings, designed by leading architects over the past fifty years, have washrooms with walls and partitions of Carrara Glass.

For the detailed information on Carrara Glass, consult Sweet's Catalog, or write Pittsburgh Plate Glass Company, Dept. 3111, 632 Duquesne Way, Pittsburgh 22, Pa.

Mellon-U. S. Steel Building, Pittsburgh, Pa.
Architects: W. K. Harrison, M. Abramovitz, New York, N. Y., and W. Cocken, Pittsburgh, Pa.



the quality structural glass

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

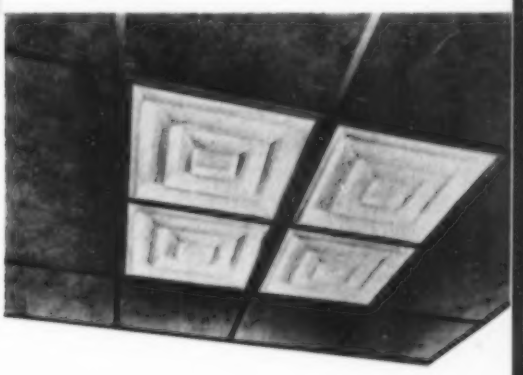
PITTSBURGH PLATE GLASS COMPANY

Lighting Fixture: #40163/ pierced, polished brass/ three buckets cast light upward into reflector/ concealed reel in a brass spheroid on suspension cord gives complete vertical flexibility/ 25" diameter shade/ designed by Gerald Thurston/ **retail:** $75/ **Lightolier, Inc., 11 E. 36 St., New York, N. Y.**

Italian Lamps: floor lamp has finger-grip adjuster to vary height/ swivel shade focuses light in various directions and levels/ base and adjustable stem finished in gray-black gunmetal, metal shade is white baked enamel/ designed by Gino Sarfatti/ **retail:** $63/ **Knoll Associates, Inc., 575 Madison Ave., New York 22, N. Y.**

Lighting System: "Mobilex"/ enclosing elements: ribbed glass, molded plastic, and steel louvers/ engineered for use with standard fluorescent lamps/ sides of fixture compress for insertion in grid opening of ceiling/ may be used in tees, squares, crosses, rectangles, and increased or changed by removing ceiling panels/ require no hangers or straps/ sizes: 24" x 24" and 24" x 48"/ **net price:** #24292 $41.16 (plastic panel in hinged frame)/ **Day-Brite Lighting, Inc., 5411 Bulwer Ave., St. Louis 7, Mo.**

Lighting Fixture: "Princess," 5000 Series, indirect fluorescent fixture/ fine-ribbed polystyrene plastic side panels diffuse light and hide lamp from direct view/ heavy-gage steel-channel cover and end plates, baked-white "Fluracite" enamel finish/ wired for 110-125 volt ac circuits with high-power ballasts/ available for 4, 5, and 8 ft. fluorescent lamps/ **list:** $26, $43, and $55/ **Curtis Lighting, Inc., 6135 W. 65 St., Chicago 38, Ill.**



I did say "wrap english oak around the columns." Didn't you ever hear of FLEXWOOD?

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Please send me, without obligation, sample of Flexwood and Case-History Book showing how Flexwood helped solve 17 architectural problems.

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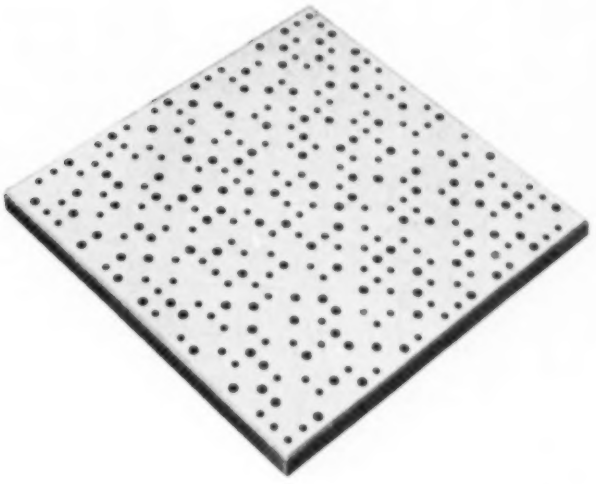
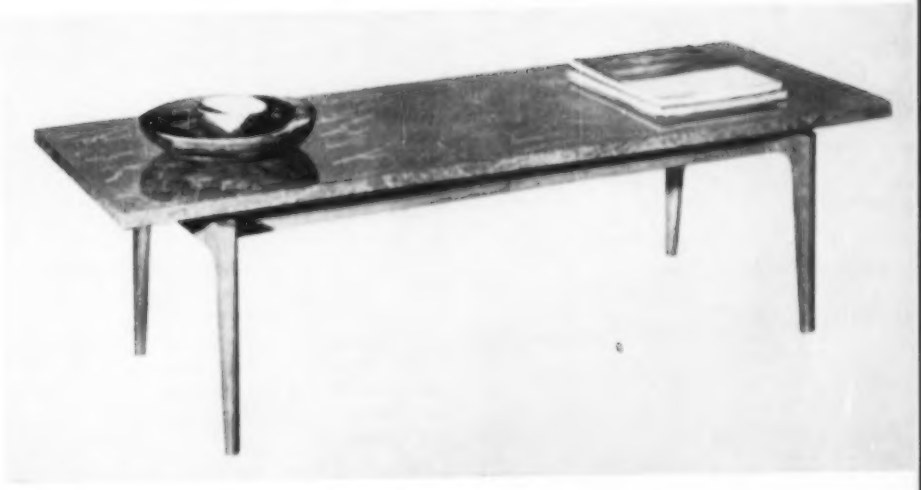
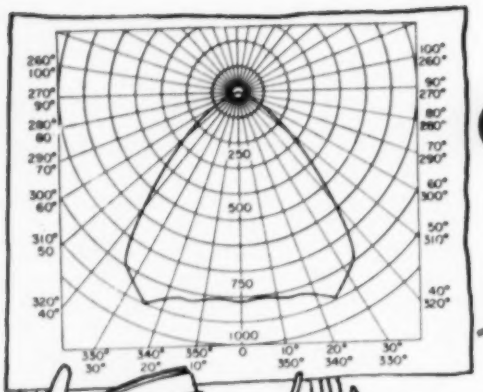


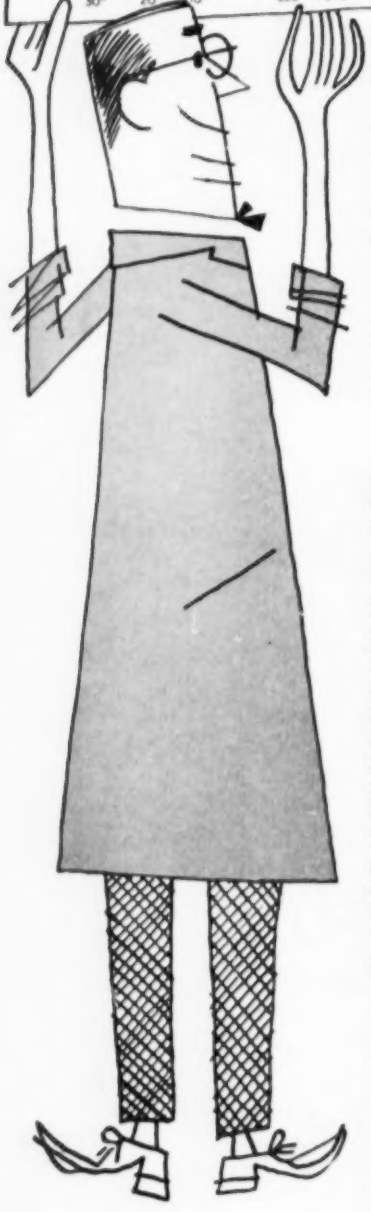
Acoustic Tile: "Random Pattern" Acousti-Celotex/ cane fiber with scattered perforations of varied sizes that minimize joint lines/ washable white finish of high light-reflectivity/ available with Duo-Tex flame-retarding oil base finish/ standard sizes and application/ "Celafone" fissured mineral tile/ pattern resembles travertine marble/ **The Celotex Corporation, 120 S. La Salle St., Chicago 3, Ill.**



Marble-topped Tables: available in cocktail, round, end, corner and bridge tables/ bases of walnut; tops may be had in variety of marbles or Rosewood Formica/ "suspension" principle/ designed by Harold Bartis/ **retail: cocktail tables 19 x 54 x 15 inches high, with wood top, $142.50; Formica top, $156.25; marble top, $170.25/ 36 x 36 x 15 inches high, with wood top, $142.50; Formica top, $156.25; marble top, $175.25/ Lehigh Furniture Corp., 16 E. 53 St., New York, N. Y.**

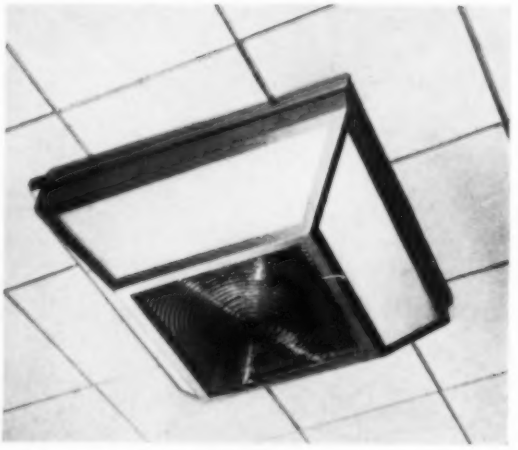


curves tell half the story



GRUBER PYRA-LITE, MODEL 6718
Surface mounting; 21½" square, 7½" deep . . . Horizontal porcelain socket for 200 or 300 watt lamp . . . 18 gauge cold-rolled steel, die-formed, welded construction . . . Albalite side diffusing panels; wide-angle Holophane Controlens* . . . 16 gauge specular alumilite reflector . . . Phosphortized undercoat; 2 coats 350° baked white enamel finish . . . Asbestos insulated backplate . . . UL approved; IBEW label

*(R) Holophane Co., Inc.



Illumination curves tell half the story of a lighting fixture . . . how well it distributes light. The balance of the story . . . how long the fixture will last, and how easily it can be maintained . . . is in the specifications. Together, illumination curves and specifications are the true measure of a fixture's design and quality.

Take the Gruber Pyra-lite. A new type of incandescent luminaire, it creates high level, well diffused light. And for versatility, the Pyra-lite has no "or equal." Its focused down-light and supplementary side-panel-light bring out the functional best in offices, stores, banks, lobbies and auditoriums. Its illumination curve is a good impartial reference.

But the rest of the story on Pyra-lite . . . the story of its life . . . is in the specifications. Here, exacting standards of quality . . . from the smallest cadmium plated lock-nut to the Holophane Controlens* . . . guarantee the features you look for in a luminaire: easy installation, low-cost maintenance, long life and steady performance.

The new Gruber Pyra-lite, like all items in the complete Gruber line of commercial-institutional luminaires, is the product of 30 years' experience in the engineering and manufacture of lighting fixtures . . . uncompromising standards for long-range economy . . . which mean that you can be design and quality sure when you specify GRUBER.

Send for NEW incandescent catalogue.

GRUBER LIGHTING, DEPT. P153
125 SOUTH FIRST STREET, BROOKLYN 11, N.Y.

Please send me your new incandescent catalogue.

NAME_____ TITLE_____

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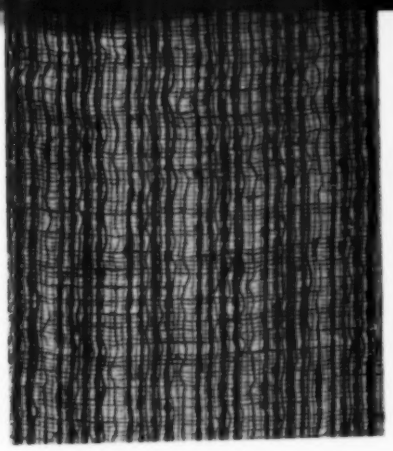
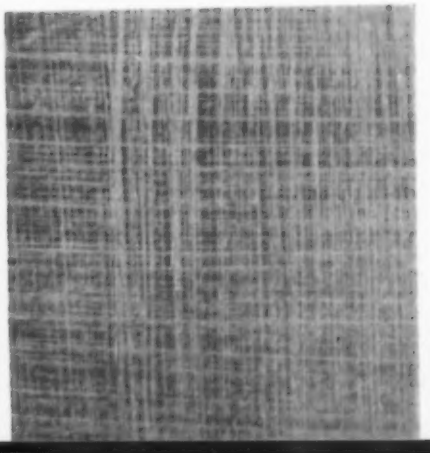


Rigid Laminates: metallic yarn fabric, uneven glass fibers, ostrich plumes and hemp fibers locked in translucent Vinylite plastic rigid sheets/ "**Panlam**"/ suitable for lampshades, room dividers, folding screens, vertical blinds, and wall covering/ **retail:** $.54 per sq ft/ **Polyplastex United, Inc., 441 Madison Ave., New York, N. Y.**

Flexible Laminates: [illegible] suitable for upholstery, decorative table cushions and wall covering/ **retail:** $.65 per sq ft/ **Polyplastex United, Inc., 441 Madison Avenue, New York, N. Y.**



8 in the side pocket

Eight *rooms*, that is, thanks to "Modernfold" *movable walls*—and to patented "Modernfold" switch tracks. One minute this church basement is a single room, perfect for large groups.

The next minute "Modernfold" doors come out of the "side pocket," then roll smoothly and quietly along overhead switch tracks to form *as many as eight* private classrooms.

Your ideas come to life... for life with "MODERNFOLD" doors

For every room division or door closure problem, there's a simple, economical, space-saving solution. That's "Modernfold," the original folding door.

Specifying "Modernfold" doors keeps clients happy. For these steel-framed, vinyl-covered doors can't be equaled *anywhere* for quality of design . . . for quality and strength of materials.

And because this line is *complete*, you're sure to save time and get exactly what you want when you specify better looking, easier operating, longer lasting "Modernfold" doors.

Sold and Serviced Nationally

NEW CASTLE PRODUCTS, NEW CASTLE, INDIANA

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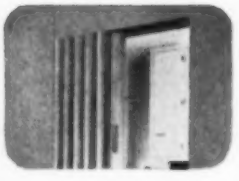
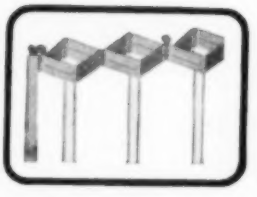
Modernfold Doors, 1315 Greene Avenue, Montreal



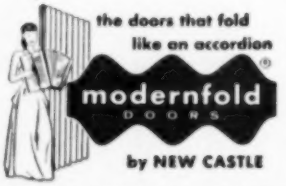
Better Looking
Fabric covering conceals all operating mechanism. No cornice needed. Adjustable trolleys keep doors hanging flush to jamb.



Longer Lasting
Balanced hinge construction both top and bottom. Trolleys attached at hinge intersections. No sidewise twist or pull possible.

Better Background
Over 100,000 "Modernfold" doors now in operation—a backlog of space engineering experience that's your guarantee of satisfaction.

YOU CAN'T GET MORE IN A FOLDING DOOR



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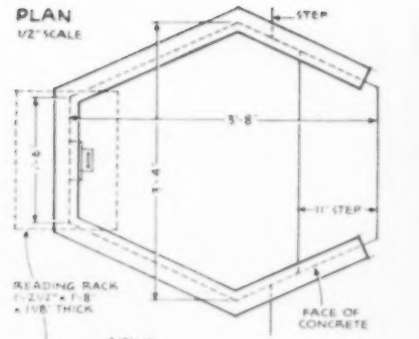
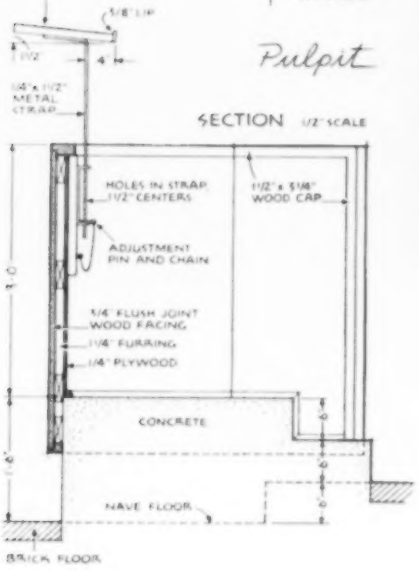
New Castle Products
P.O. Box 538
New Castle, Indiana
Please send full details on "Modernfold" doors.

Name.....

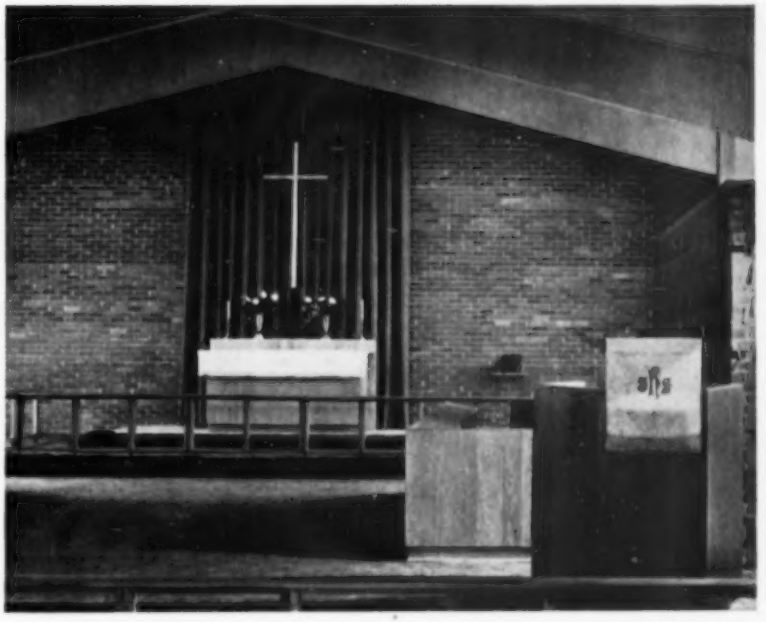
Address.....

City.....*County*.....*State*.....

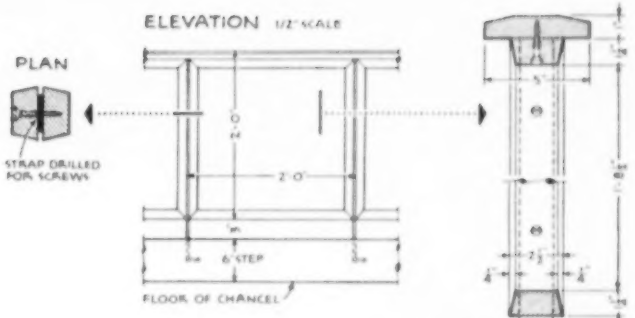




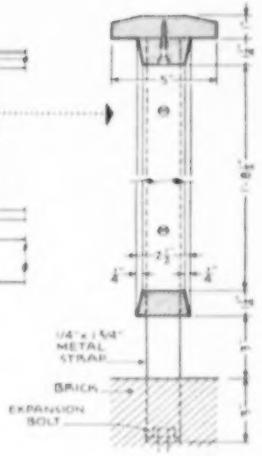
Pulpit

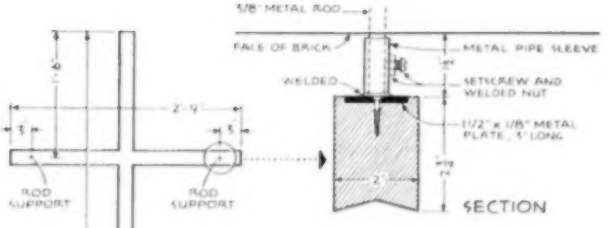


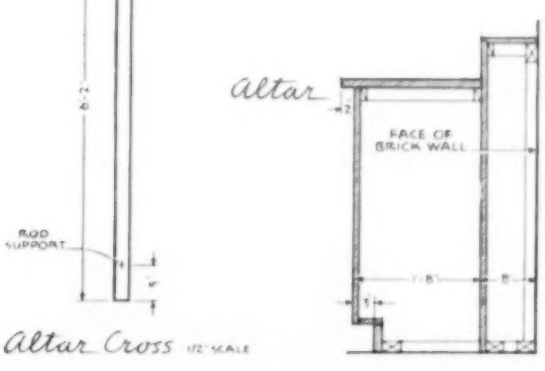
JACK HOLMES



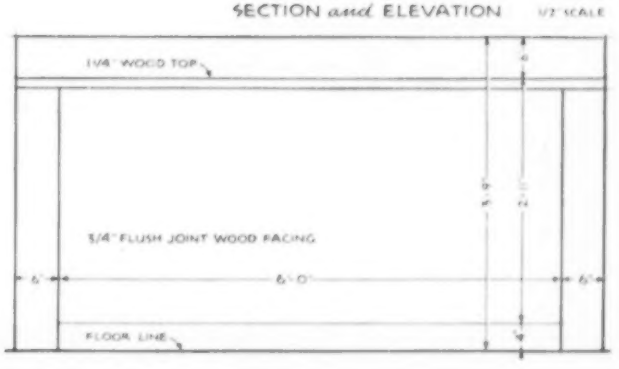
Altar Railing





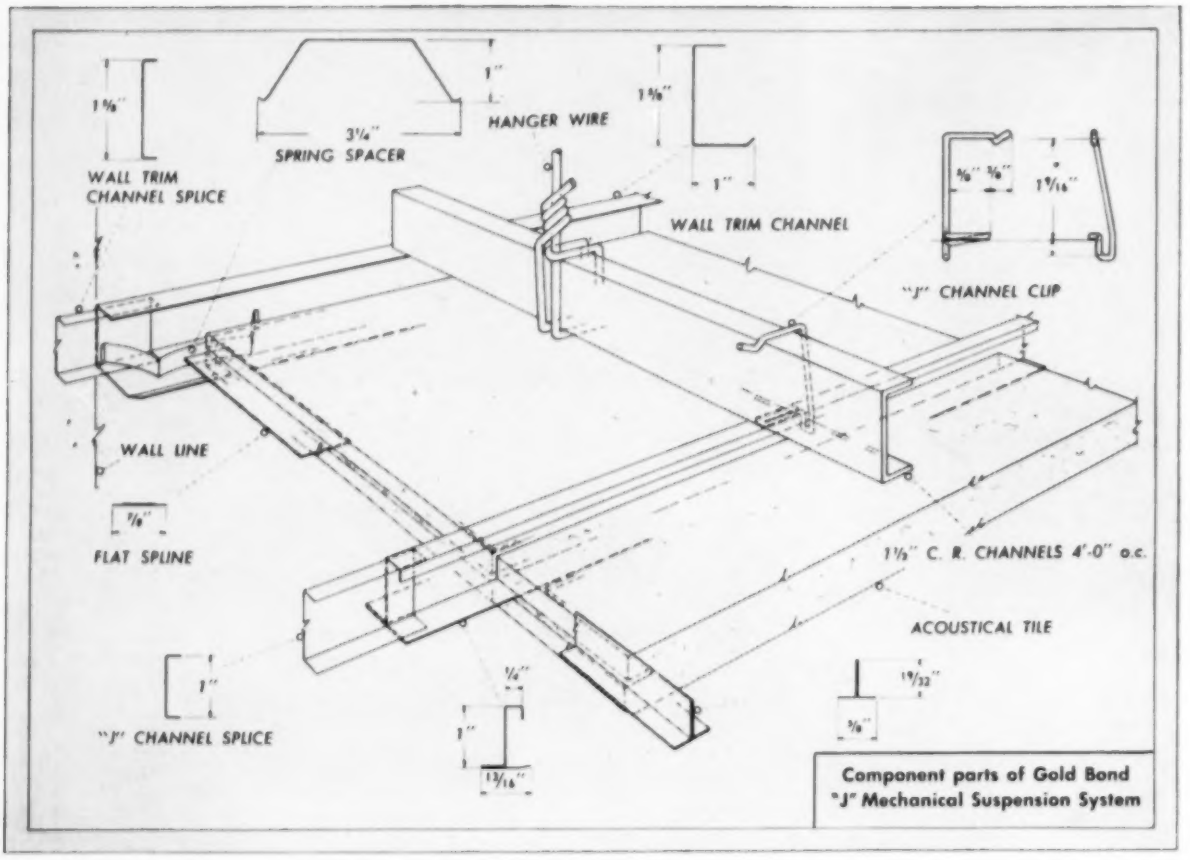


Altar Cross 1/2" SCALE



ST. ANDREW'S EPISCOPAL MISSION STATION, Tuskegee, Ala.
Sherlock, Smith & Adams, Architects-Engineers

Announcing THE NEW GOLD BOND "J" MECHANICAL SUSPENSION SYSTEM



Component parts of Gold Bond "J" Mechanical Suspension System

Gold Bond's new system for mechanically suspending acoustical ceilings makes jobs easier and faster; it accommodates any acoustical tile under most circumstances; and it permits economical maintenance.

Gold Bond's "J" System gives you these money-saving advantages:

1. Only three basic parts make up the system.
2. Builds complete ceilings.
3. Gives lowest per square foot cost.
4. Recessed light troffers can be installed.
5. Gypsum Wallboard and asbestos-cement board bases may be used.
6. Permits stepped ceiling assemblies.
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Besides construction advantages, you and your client receive additional benefits from the "J" System. It is covered by National Gypsum Company's policy of undivided responsibility...Gold Bond supplies the system, gypsum wallboard and acoustical materials, and qualified Gold Bond Acoustical Applicators install the complete ceiling.

Before you specify any mechanical suspension system, write our Architectural Department for complete information and a set of drawings which show details of Gold Bond's new "J" Mechanical Suspension System.

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Lath, Plaster, Lime, Sheathing, Gypsum Roof Decks, Wall Paint, Textures, Rock Wool Insulation, Metal Lath, Sound Control Products, Fireproof Wallboards, and Decorative Insulation Boards.

You'll build or remodel better with **Gold Bond**

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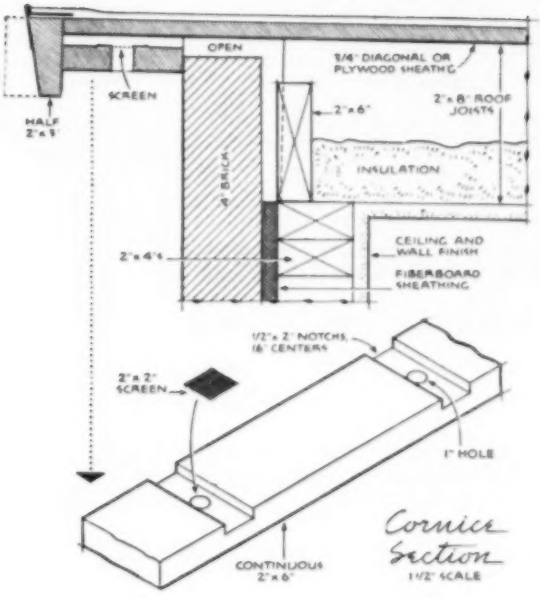
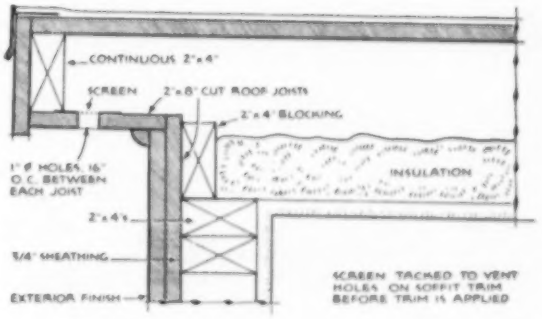
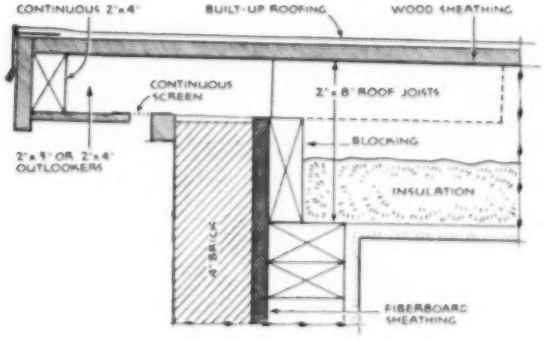
J. P. Trouchaud, Architect

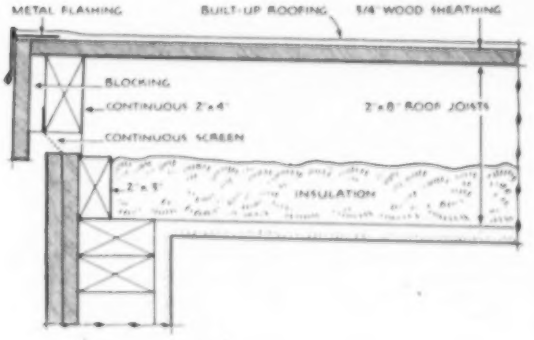


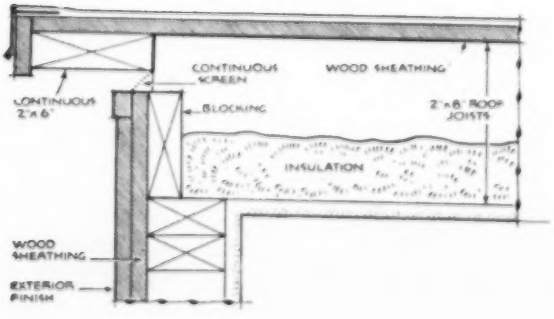
GOTTSCHO - SCHLEISNER

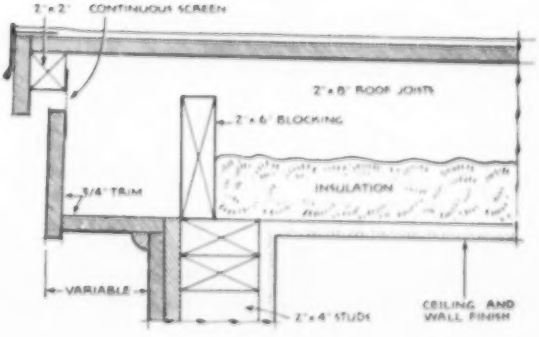


Suggested Variations



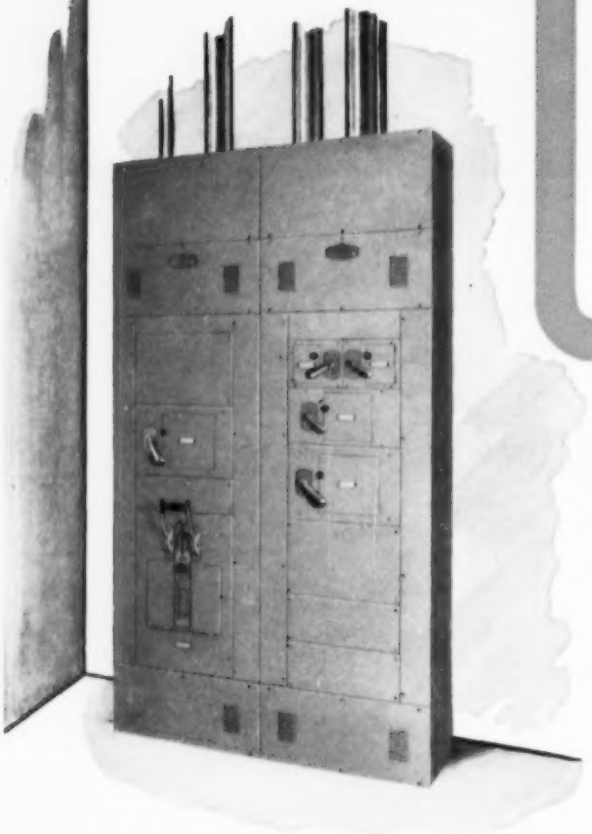






where space is limited

INSTALL FA SWITCHBOARDS front-connected



The FA Switchboard, Front-Connected illustrated here is 54" x 96" x 14½" and contains two (2) 60 Amp., one (1) 100 Amp., two (2) 200 Amp., and one (1) 400 Amp. 3 P. Shutlbrak Switches; also space for two (2) 100 Amp. and two (2) 200 Amp. future switches.

FA Switchboards, Front-Connected are available in the following types and capacities:

SHUTLBRAK — 30 to 1200 amperes, 250 volts AC or DC and 600 volts AC. Rotary type operating handles furnished on 30 to 200 ampere capacities. Straight handles on all others.

KLAMPSWITCHFUZ — 30 to 600 amperes, 250 volts AC or DC.

SNUFARC — 30 to 200 amperes. 600 volts AC.

Like all FA Switchboards, these space-saving boards are built from standard, pre-assembled units that fit readily together to form one complete assembly.

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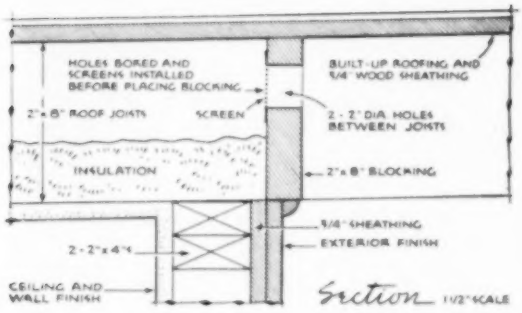
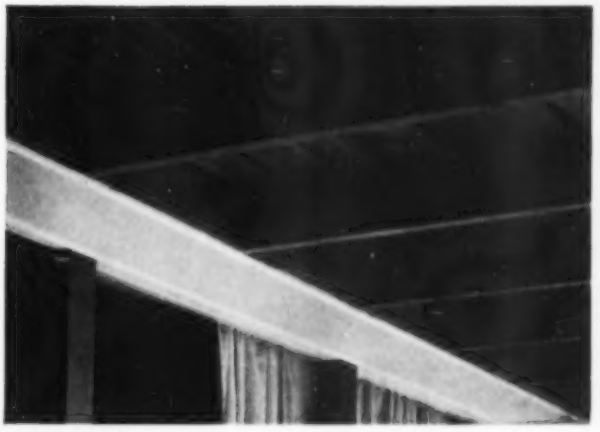


Section 1 1/2" SCALE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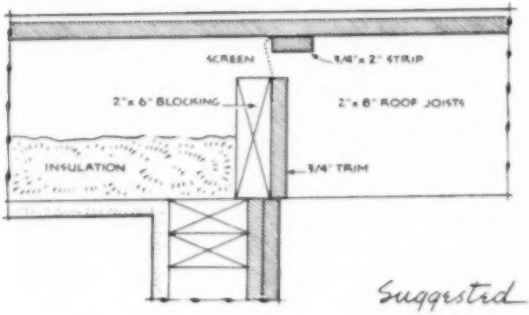
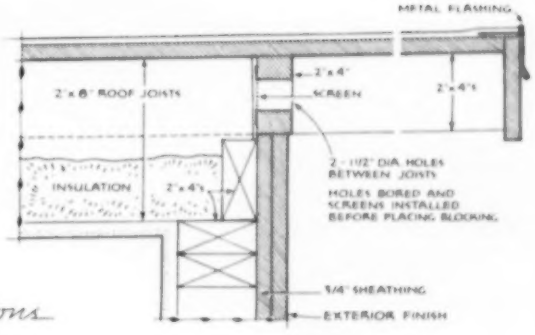
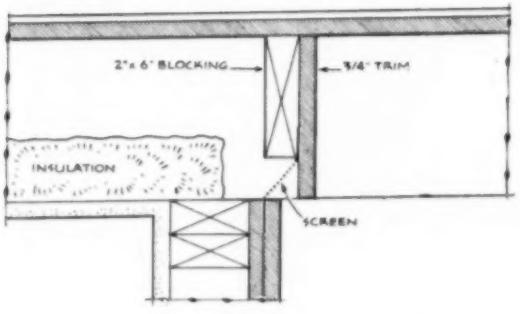
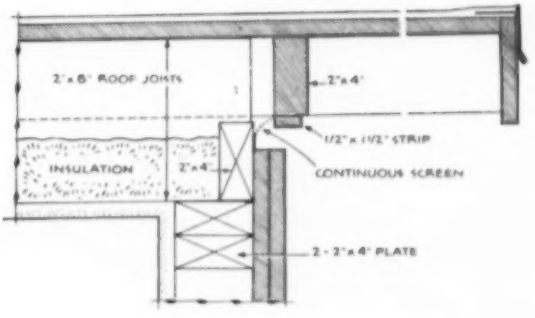
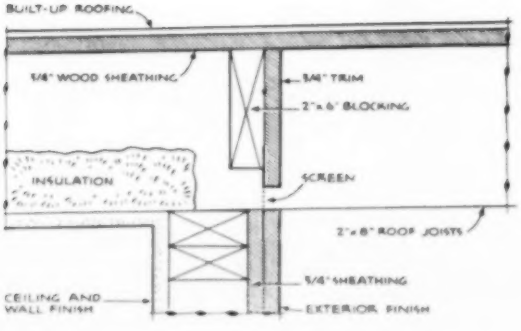


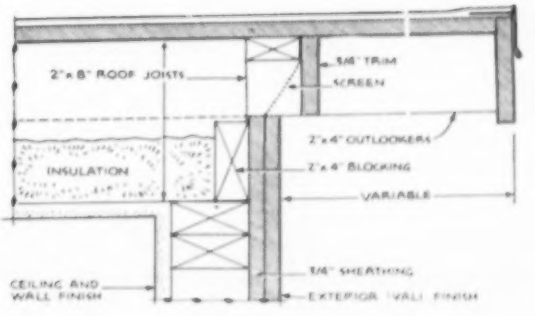


Suggested Variations









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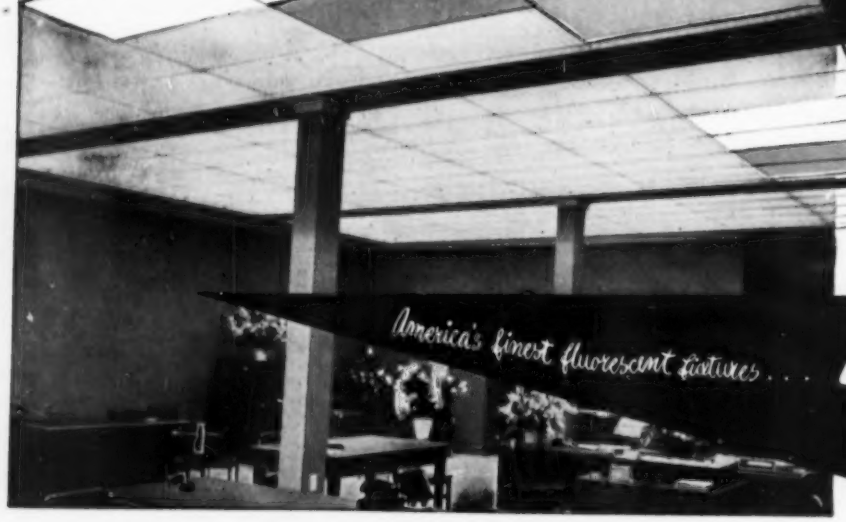

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by Bernard Tomson

it's the law

What, if anything, is to be done by architects about the practice of architecture by engineers? What are the differences between the professions of architecture and engineering? When may it be said that the latter is encroaching upon the area of activity of the former? What are the bounds, if any, as prescribed by law?

The distinction between the professions is generally recognized to be of considerable importance, but the relative success in maintaining two distinct categories have largely been dependent upon the type of legislation in effect and its construction by the state courts.

For example, in *Clark* v. *Eads*, 165 S.W. 2d 1019 (1942), a Texas court denied recovery for architectural services rendered by an engineer who represented himself as an architect, and who was not licensed as an architect. It is important to note, that there are thirteen such jurisdictions which have in effect title statutes where anyone may pursue the practice of architecture, provided that he does not use the title "architect" and represent himself as an architect. Apparently the result would have been different if the engineer had not represented himself as an architect.

A licensed engineer, who was not licensed as an architect, was denied recovery for architectural services in *Gionti* v. *Crown Motor Freight Co.*, 128 N.J.L. 407, 26A.2d 282 (1942), despite the overlapping of the two professions. The statutes distinguished the two professions and the court held that a license to practice in one did not carry the right to practice in both. The court declared, on page 285:

"It is argued that as a result of the progress made in the professions of the practice of architecture and engineering, many 'overlapping functions and activities' have arisen between them, that the result has been that all 'distinctions' between them have 'passed away,' that they 'differ in name only,' and, therefore, we should construe the respective statutes relating to these professions accordingly. However interrelated the professions and the statutes relating to them may be, the legislature has made and maintained a marked cleavage between them. It is beyond our power to thwart that clear legislative cleavage."

A recent New York case, *D'Luhosch* v. *Andros*, 109 N.Y.S. 2d 491, 200 Misc. 400 (1951), in construing the wording of the definitions of architect and engineer, found them to be substantially the same, except for the inclusion in the definition of an architect of the phrase including "esthetic and structural design" and the further statement that his professional service "requires the application of the art and science of construction based upon the principles of mathematics, esthetics, and the physical sciences." No engineer drafting plans and specifications for any dwelling would knowingly and seriously avoid using this art, reasoned the court, and therefore recovery was granted to a licensed engineer for services rendered in drawing plans and specifications, even though he was not a licensed architect. The reasoning of the Court is interesting and is therefore appended.[1]

A similar result was reached in *Smith* v. *American Packing and Provision Co.*, 102 Utah 351, 130 P. 2d 951 (1942), wherein a licensed engineer was permitted to recover for services which covered an area common to the field of architecture. The court declared that the real criterion for determining if a licensed professional engineer must also have a license as an architect, is not whether some service he performs might be lawfully performed by an architect, but whether such functions are necessarily embraced within the scope of engineering covered by his license.

See also, *Rabinowitz* v. *Huruitz-Mintz Furniture Co.*, 19 La. App. Rep. 811, 133 So. 498 (1938), where a licensed engineer recovered for services rendered under a contract drawn on a printed form for architects. Use of the printed form was not enough to subject him to the architect's licensing statute, nor did it amount to a holding out that he was an architect. The court defined an architect as one "who, skilled in the art of architecture, designs buildings, determining the disposition of both their interior and exterior space, together with structural embellishments of each and generally supervises their construction," while a civil engineer is one "whose field is that of structures, particularly foundations, and who designs and supervises construction of bridges, great buildings, etc. One judge, in a vigorous dissent, sets forth the contrary view in succinct fashion.[2]

Finally, the wording of several of the practice statutes has, in some instances, all but erased the distinctions between the two professions. A typical example of this is the Kentucky statute providing that ". . . no person shall practice architecture without having a license . . ." but adding that "nothing . . . shall prevent engineers, mechanics, or builders from making plans and specifications for buildings. . ."

Shall anything be done about it?

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[1] *"(1,2) Both articles define a person practicing professional engineering, Sec. 7201, and architecture, Sec. 7301. The wording of the two definitions are substantially the same except for the fact that the definition of an architect uses the word esthetic. However, both definitions specifically provide that both an engineer and an architect may plan, design, and supervise the construction of buildings both private and public. Both articles are similar with respect to the educational qualifications required of licensees, disciplinary proceedings, penalties, prosecutions for violations, etc. Moreover, both articles provide that nothing contained in either statute shall be construed so as to effect or prevent the practice of the other profession by one duly licensed thereunder, the only prohibition being that an engineer shall not use the designation or hold himself out as being an architect nor the latter as an engineer. Secs. 7208, 7307, I cannot find that there is any statutory distinction between the services which may be legally rendered by a licensed engineer and that by an architect. True it is, that historically at least, an architect has always been classified as one associated with the arts, Young v. Bahn, C.C., 141 F. 471, 472, which does not appear to be so with respect to the engineer. This undoubtedly accounts for the inclusion in the definition of an architect of the phrase including 'esthetic and structural design' and the further statement that his professional service 'requires the application of the art and science of construction based upon the principles of mathematics, esthetics, and the physical sciences.' However, it can scarcely be contended successfully that the principles of mathematics and the physical sciences are not and have not always been utilized by the engineer, and to some extent at least, the art of esthetics. Certainly no engineer drafting plans and specifications for any dwelling would knowingly and seriously avoid using this art. Moreover, there is further evidence within the article defining architecture readily indicating that the licensed professional engineer is placed on an equal footing with the architect. The same educational qualifications are required by the State as hereinbefore noted. Moreover, Sections 7203 and 7302 dealing with public works specifically indicate that either or both may be employed to prepare plans, specifications, and construction. In the past undoubtedly, so far as construction itself was concerned, the architect frequently required the services of the engineer. Today, however, the architect appears to possess at least equal qualifications, and a statute authorizing his sole employment in preparing plans and specifications for the erection and construction of multiple dwellings in the City of New York, has been held constitutional. Goldschlag v. Deegan, 135 Misc. 535, 238 N.Y.S. 3, affirmed 254 N.Y. 545, 173 N.E. 859. It is significant that the lower court in his opinion stated that, 135 Misc. 536, 537, 238 N.Y.S. 4, 5, 'the architect of the future will probably be more of an engineer than of what was formerly known as an architect' but that 'speaking of today, there are many elements of service in the preparation of plans for the construction of a building of whatever type, and the superintendence of construction, that may be more properly left to what we now know as an architect than to what we now know as an engineer.' Of course, it must be borne in mind that the court in rendering the foregoing decision was passing upon a statute which involved a new type of dwelling in the designing and planning of which I think it is only fair to say, an architect would be more properly trained than an engineer. Only to a limited degree, if at all, may this be said to be true of a dwelling house as in the case at bar.*

"(3) It must also be remembered that neither statute prohibits the practice of the other's profession, but on the contrary as already pointed out, specifically accepts the other profession from the statute under consideration. Fundamentally as stated in the statutes, the purpose of licensing both engineers and architects is to protect and safeguard life, health, and property."

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[2] *"Janvier, J. (dissenting). Plaintiff Rabinowitz admits that he is not a licensed architect. Thus he is prohibited by Act No. 231 of 1910 from undertaking architectural work.*

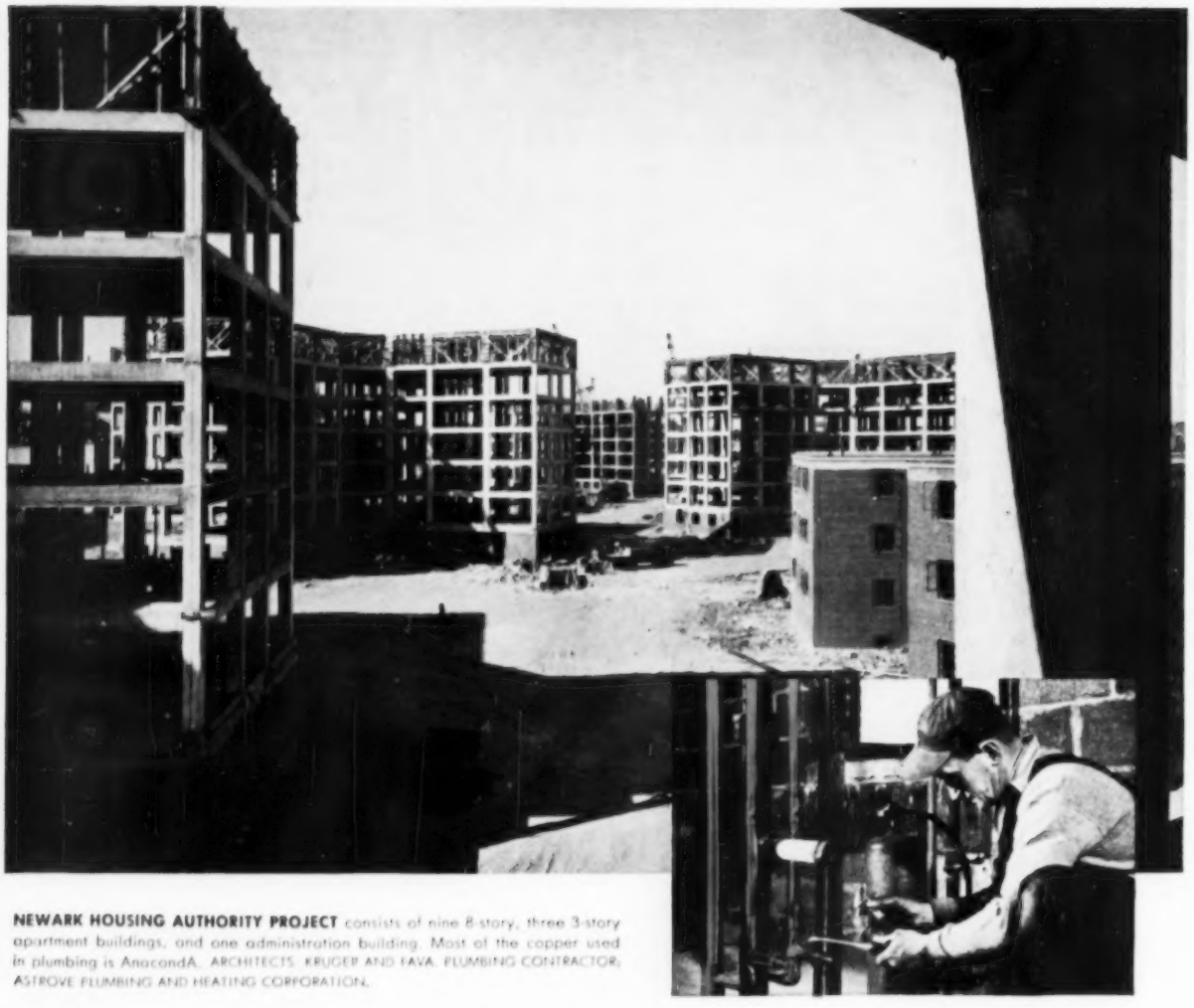
That the work which he here undertook and for which he now seeks remuneration is architectural is best evidenced by the fact that the contract under which he obtained the employment was executed on a standard form of the American Institute of Architects, prepared for use where a contract is entered into between an owner and 'an architect.'

I am well convinced that one who prepares plans for and supervises the remodeling of the entire front, of a store building thus undertakes architectural work. That is what Rabinowitz did here.

The fact that the plans required certain structural steel work to be done did not deprive the whole work of its architectural character. In the organization of a corporation a notarial charter is necessary. Does this fact render the work of organizing and advising the corporation notarial rather than legal? Or does it give to one who is a notary and not an attorney the right to give legal advice to the corporation?

It cannot be denied that considerable difficulty was encountered in the carrying out of the work. It was to eliminate as far as possible just such difficulties that the statute of 1910 was enacted.

Architectural work should be done by architects, and it is a plain violation of the statute for a civil engineer to undertake it. His styling himself a 'civil engineer' does not change the character of the work."



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by Carl Feiss

out of school

To be a truly great architect and city planner requires both faith and optimism. Without faith in man and optimism about the future there would be no purpose in building a building or a city of buildings. Too many of us, in recent years, have succumbed to the weight of the frustrations and worries which we, as individuals, have accumulated in taking the sorrows of the world on our little shoulders. A couple of months ago, in Boston, I heard one of the grand old men of architecture deliver in public a lugubrious funeral oration on the world, on architecture, and planning. Technology, apparently, had not given us the world he had hoped for. This was an epitaph for modern man. This was a hopeless acceptance of an ultimate defeat of culture and a sad acquiescence to a dissolution of all those principals for which he alone (again, in his opinion) had fought for so valiantly through the last 40 years. And he *had* fought valiantly. And in my opinion he had won great victories in his battles with stupidity, blind tradition, and vulgarity. While he had every right to look back with pride, he had no right to look forward to desolation. To do that not only opens the door to senescence but also indicates the abject willingness of a leader to quit, to extinguish a very bright and hot torch, rather than to toss it on to the most likely of the young optimists who today should be the mirror of his youth.

I have sympathy with tired old men, being one myself on alternate Wednesdays. This is a world in which the wise and liberal old men, and there are many of them, must guide callow (and conservative) youths into the paths of real derring-do. The life cycle is so short—40 to 50 years of accomplishment for the best and most active of us. Under the circumstances, we do not accomplish alone what has to be done. We do two important things: we teach others to do what they (the others) agree we know something about; and we form teams of optimists, of builders.

That great association of architects working with Carlos Lazo, responsible for that incredibly satisfying and beautiful new University of Mexico, has been a team of young optimists believing in many things, if I interpret the architecture correctly. First, the architects believed in the permanence of the world —as did their vanished forebears at San Juan Teotihuacan. Second, they believed in themselves and the validity of the beauty of structure and form which they have created.. That estimable self-confidence rings clearly and unhesitatingly in the dynamic designs.

(Continued on page 126)

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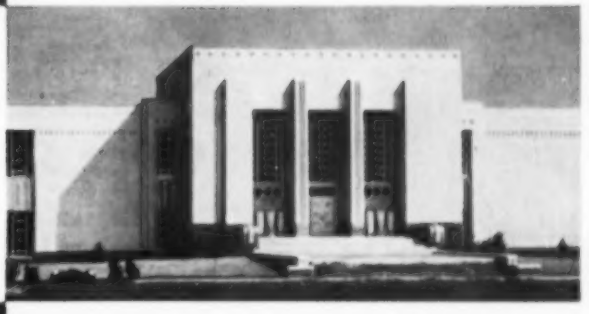
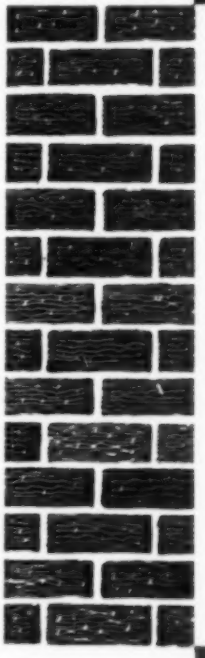


Arch: D. A. Bohlen, Indianapolis, Ind.



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out of school

(Continued from page 125)

Then, these young men believed in the great and limitless future for man and in the validity of the atavistic urge of teaching—that most optimistic of all the arts. If one does not believe in the transmission of knowledge as a fundamental to existence, there can be no point to building educational buildings. Gropius must have felt this when he designed the Graduate Dormitories at Harvard; Eliel Saarinen, I know, felt this at Cranbrook; Manley, Weed, and Little felt this at Miami; and I believe that Trumbauer may even have felt a bit of it at Duke. I never could decide what Wright thought about at Florida Southern College, but it obviously was neither education nor the future of Man. It was probably F.L.W.—which was not entirely sufficient. He did much better at the two Taliesins, where he could believe in education because the only education he happens to believe in is Him. It's a very logical world when you look to the motives of people. This is particularly true where the motives are human and not based on logic.

I am writing this flying north from Miami, having just passed over that nasty mess, Miami Beach. Of all excrescences, that superabundance of architectural garbage caps the climax. Years ago, I thought Barcelona (not Gaudi's works, for which I have unbounded admiration) was the ultimate in architectural vulgarity. I take it all back! What goes on below me outdoes all the rest. I know it pays, but I prefer the University of Mexico. I can well see why the tired old men get discouraged and see ahead only an endless vista of neon honkytonks and the empty ugliness of our congested cities—whether they be Miami Beaches or Bostons. When I retire on my faded laurels (which may be any day now), I hope to retain some modicum of a sense of perspective about these things, remembering as we all must, that human progress is delayed by the Spanish Inquisitions and the Buchenwalds and the Miami Beaches; but that human progress is measured as progress by the Parthenons, the Chartres, the great cities like Paris and Washington, and the great educational institutions like ancient Oxford, Cranbrook, or modern Mexico. The least the tired old men could do is discuss the magnificent ruins such places would make in an atomic era.

•

As I have been writing this, my mind has been tracing back to just 21 years ago this month (I think I am correct on the date), when I was privileged to become Eliel Saarinen's first full-time American pupil. Somewhere there should be a record of the early days at Cranbrook and what was a unique experiment in architectural education under the guidance of a very great, wise, and wonderful man. The previous summer, I had wandered out to

(Continued on page 138)

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out of school

(Continued from page 126)

Bloomfield Hills, Michigan, on my own, broke and damaged, having recently been in an automobile accident. I had gone out to Cranbrook because it was already an architectural legend. I wanted to see it. There were no other motives or hopes. For a recent college graduate in the depths of the Great Depression, the future was not bright. Eliel Saarinen was in South America at the moment, on the jury for the International Columbus Lighthouse Memorial Competition. Cranbrook was solitary, hot, and very beautiful in mid-August. By curious good fortune, Mrs. Saarinen, a lovely person and talented artist in her own right, found me wandering around, fed me coffee and sandwiches, and talked of the future. To make a long story short, Saarinen stopped in Cleveland to see me on his way back from South America, and shortly thereafter I found myself in an unexpected dream world at Cranbrook for the next two and a half years.

No one can quite adequately describe Eliel Saarinen who, in my opinion, was the wisest teacher of architecture of modern times. He was a small man, solid but not stout, and of a very self-effacing color. He merged into any crowd, disappearing like the Cheshire Cat, leaving nothing but twinkling gray eyes. Those eyes missed nothing —ever. He had inexhaustible energy. We used to sit drinking akvavit and coffee until two or three in the morning after a hard day, talking animated architecture in that lovely house the Saarinens used to occupy at the Academy—the house where all the furniture, textiles, and fixtures had been designed by the family as a unit. (Mrs. Saarinen was unable to continue there after Eliel's death, and I often wonder what has happened to those wonderful rooms.)

All kinds of interesting people were continually turning up at Cranbrook, in those days. Raymond Hood was a frequent visitor. Eliel and he were very close friends, and I remember long debates on the texture, fenestration, and shape of Rockefeller Center, with lots of tracing paper and other stimulants to enliven the discussion. In fact, my first year at Cranbrook was handled most adroitly by Eliel. I soon realized that his first interest in me was to unwrap the cocoon of five years of Beaux Arts Institute of Design training, from which I was unable to emerge by my own energies alone. The stimulus of interesting visitors plus the constant contact with that great group of craftsmen then at Cranbrook—Carl Milles in sculpture; Kirk in silver; Gregory in ceramics; Maja Wirde in weaving; and many others—made each day an exciting experience. I wanted to try my hand at everything, and no one seemed the least bit upset at the idea. There was such a genuine intensity of purpose and so eager a search for order and beauty that none seemed ever to get

(Continued on page 131)

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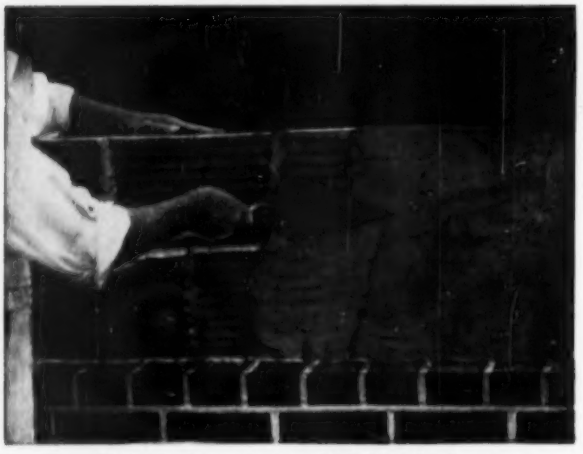
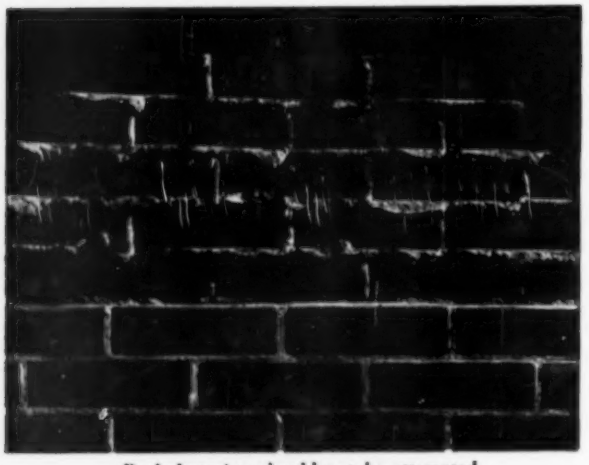
The face brick should be backplastered.



If the back-up units are laid first, the front of the back-up units should be plastered.



Backplastering should not be attempted over protruding mortar joints.

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out of school

(Continued from page 128)

bored or mad with anybody. The banks closed in Detroit and the Great Depression clamped down around us. Both the winters of 1932 and 1933 were bitter cold and since we were all broke—in a sense exiled both physically and economically to the cultured wilds of Bloomfield Hills, Michigan—there was a real kinship amongst us. And production was automatic and co-operatively enthusiastic. Even Prohibition, although a problem, did not daunt us. We brewed beer in our rooms and when a couple of dollars turned up we would buy raw grain alcohol in gallon gasoline tins in Pontiac and concoct an elixir called by us "Wheero," containing a weird non-alcoholic Danish liqueur which probably should always remain nameless. The word "Wheero" derived from a song which ran, "Where, oh where are the Cranbrook architects? Safe now on the barroom floor!"

But I am digressing. Eliel had decided that he wanted to open an architectural school. What he wanted was not a school as such, but rather a gathering together of interesting and ambitious people who could work together and learn together. Each was to select his own program of work and work on his own time. When he wanted advice he could ask for it; otherwise he would be let alone. During my first winter I rattled around in a drafting room, with a study and what would honestly be called a bar, all of my own, on the second-floor north end of the men's dormitory, then practically empty. The buildings were all new and I just spread out all over. Eliel would come wandering in and sit down at any one of three drafting tables at which I was then working in a scatter-brained fashion. Between many cigarettes he would calm me and put order into my enthusiasms. You see, having broken out of the bonds with which the old curriculum at the University of Pennsylvania had tied me, I was raring and tearing around in all directions at once. My new-found freedom was not only exhilarating, it was just plumb intoxicating.

By midsummer, 1932, Eliel had decided to take six more students, and one by one they arrived. We reorganized the drafting rooms and I pulled in my horns. It was a fine gang and we worked like dogs. We took on some outside competitions and won a bronze medal and some much-needed cash, in an international competition for the design of a new town on the left bank of the Scheldt River at Antwerp, Belgium. I still have that medal, somewhere. Eliel was constantly wandering in and out. He never gave what, in common architectural school parlance, would be called a "crit." Our relationships were different. His genius as a teacher was to make it appear that he believed that we knew as much about architec-

(Continued on page 133)

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out of school

(Continued from page 131)

ture as he did. The only differences were in kinds of experiences and points of view. Since we knew that that was nonsense, we did everything we could to prove that it wasn't nonsense. The result was that we all worked harder and learned more in our few years at Cranbrook than ever before (or probably after). When Eliel discussed a drawing, he never sketched over it. Sometimes he would make a delicate thumbnail indication on the side of a piece of tracing paper or detail paper. He loved hard pencils—we always thought he drew with ten-penny nails. But his sensitive, neat, and human genius was of a sort which required that an idea be clear and not obfuscated by "crud." I will never forget the colored-ink line drawings he made for the colonnades of the Kingswood School. They were as beautiful and as sensitive as a silverpoint by Leonardo and as clear and unquestionable as a Durer engraving. When making a rendering in perspective he would start at the lower left-hand corner of a sheet of clean paper and end at the upper right-hand corner, having finished every square inch completely and meticulously as he moved across the sheet—a feat of prevision so incredible that to this day I wonder whether I really saw it. However, it was his common method and I cannot recollect any other.

What the Cranbrook training method became was, in a sense, a system of specialized adult education. The students were graduates of at least four years of a standard training before coming to the Academy of Art. They came to be with him, but he did not expect, or even want, them to sit at his feet. His shy but firm personality did not demand either worship or subservience. He liked young people around him to talk to, and he thought he could supply them with a good working atmosphere. It was no more complex than that. And the Cranbrook roster of "Alumni," if you can call them that, is a fine one: Ed Bacon, Planning Director of Philadelphia; Louis Wetmore, State Planning Director of

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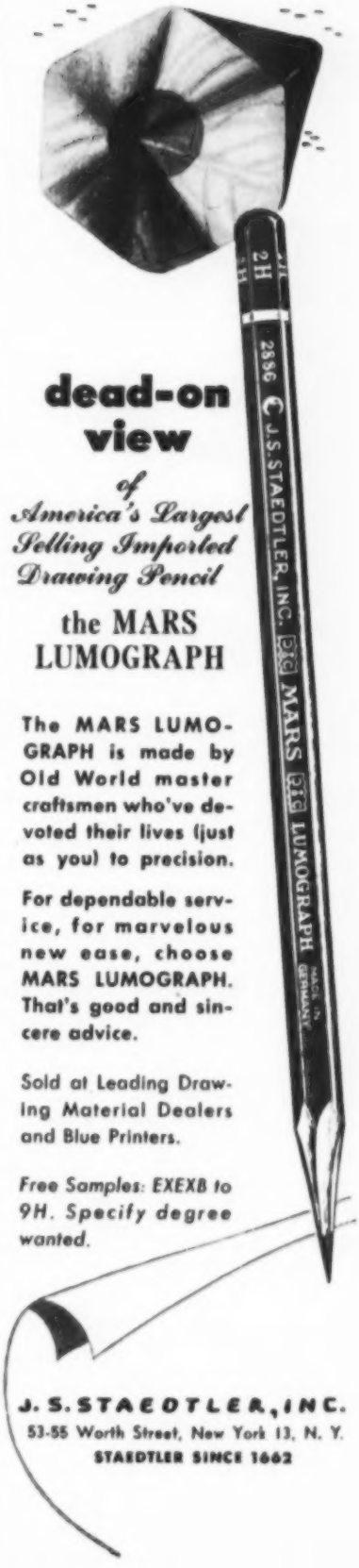

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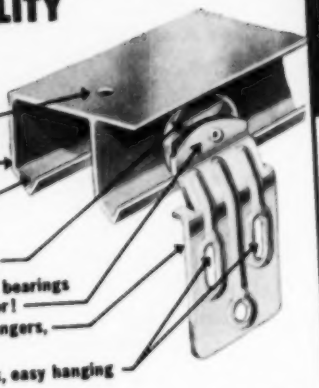
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out of school

(Continued from page 133)

Rhode Island; Harry Weese, Architect, of Chicago; George Matsumoto, Head of Design at North Carolina State—among many on a long and good list. These boys were excellent grist for the Cranbrook mill, it is true. It would be silly to wonder whether or not they reached their present status because of Eliel and Cranbrook, or would have arrived there anyway. Personally, I feel that the serene but dynamic atmosphere of Cranbrook, the high value which the whole place put on intellectual, artistic, and human accomplishment, the gentle wisdom of a proven great man for whom there could be nothing but affection, all provided within the charm and design of the place a ripening moment for each of us.

Out of Cranbrook came no little Saarinens, no wraithlike shades of a maestro, no imitators in design, no rubber stamps. Each individual who went in between the gates of the Academy to look down the little avenue toward "Jonah and the Whale" at the end, came out a year or so later the same individual, but in a more concentrated form. To call Cranbrook under Saarinen an educational system would not be accurate. It was an educational experience. It was an immersion into a little Shangri-La which gave some prevision of what a center of culture of the future could be.

It was this last, this almost oriental belief in the eternality of wisdom which gave the serene beauty of Cranbrook both its design validity and its unique position in the history of architectural and planning education. Eliel never for a moment permitted himself to be pessimistic about the destiny of design, the value of technology, or the future of Man. His own works at Cranbrook, an oasis in that hideous architectural desert of Detroit, is testimony to his unflagging optimism in a world that to other men would have presented overwhelming odds. His teaching at Cranbrook will always be remembered by those of us who experienced it as a testimony of faith and a confirmation of our own belief that a search for Utopias of our own design is the most important search of all.

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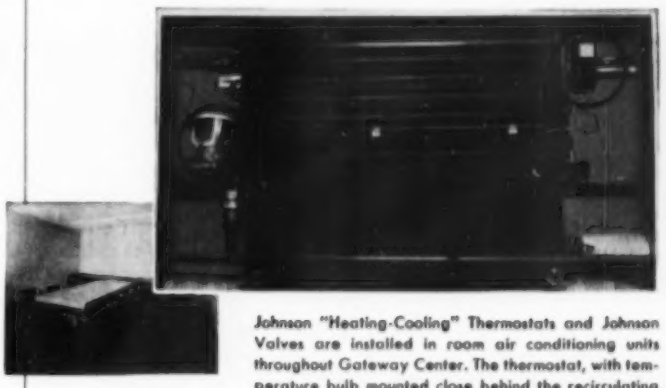

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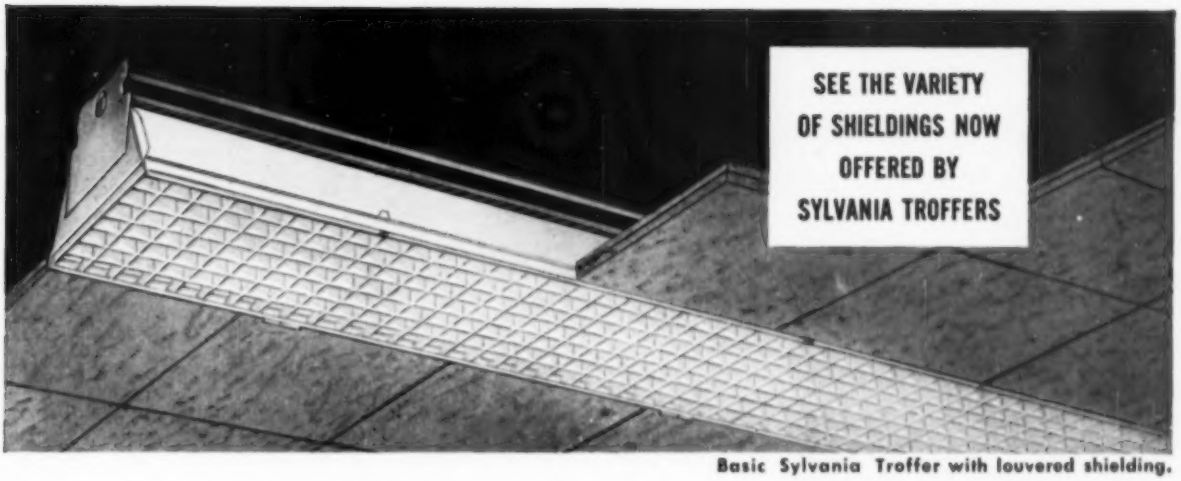

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notices

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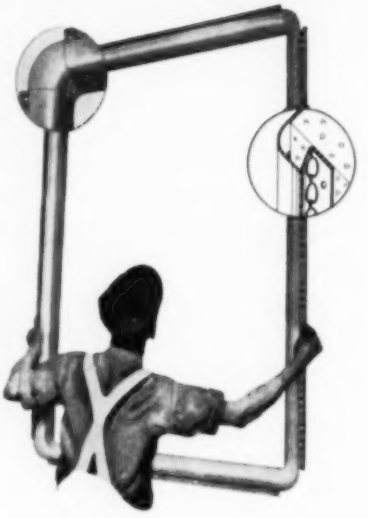

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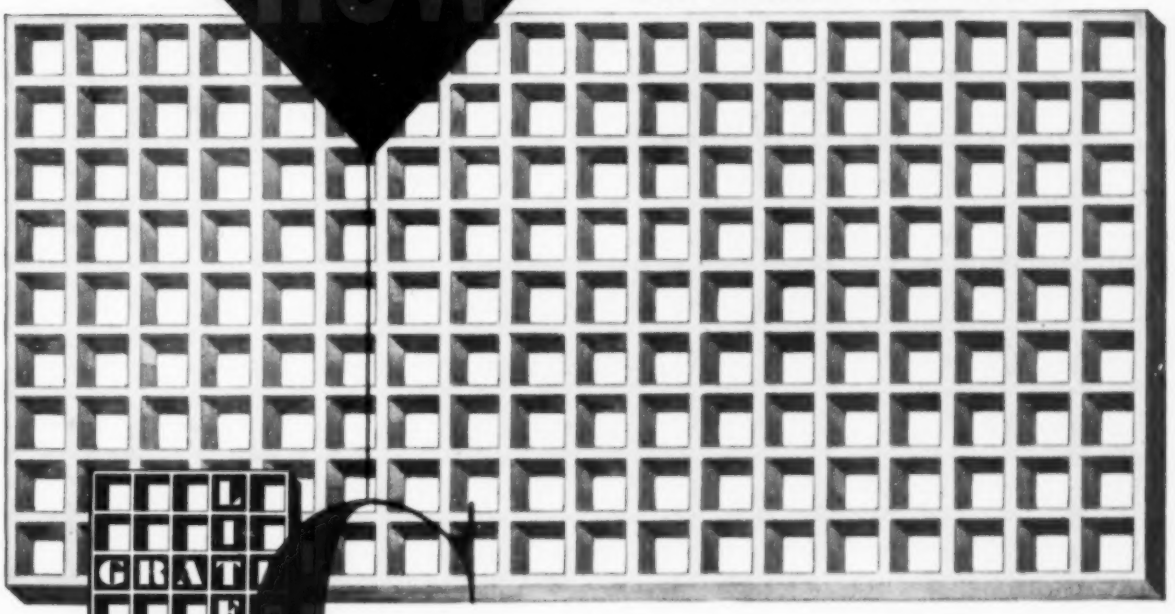

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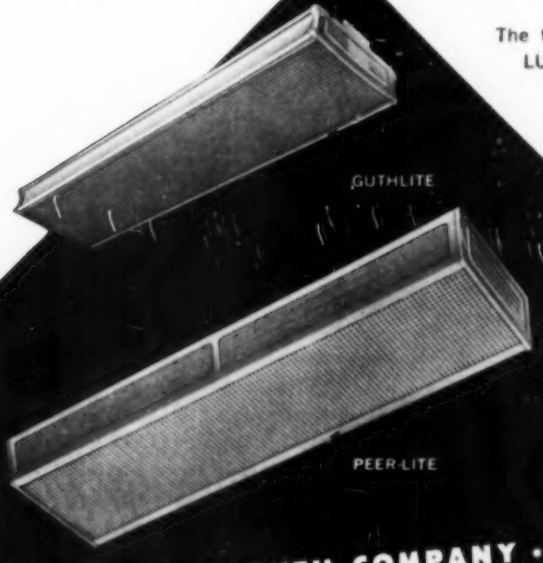

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books received

Speaking of Liturgical Architecture. Father H. A. Reinhold. Liturgical Programs, University of Notre Dame, Notre Dame, Inc., 1952. 33 pp., illus., $1

The Modern Shop. Bryan and Norman Westwood, The Architectural Press, 9-13 Queen Annes Gate, S W I, London, England, 1952, 183 pp., illus. 30s. Od.

Acoustics in Modern Building Practice. Fritz Ingerslev. The Architectural Press, 9-13 Queen Anne's Gate, S.W. 1, London, England. Distributed by The British Book Centre, Inc., 122 E. 55 St., New York 22, N. Y., 1952. 290 pp., illus., $7.50

The American School and University, 1952-53, Vol. 24. American School Publishing Corp., 470 Fourth Ave., New York 16, N. Y., 1952. Illus., $5

Architects Lundeen and Hilfinger, Bloomington, Ill., designed this modern building for the Kemp Grain Co. of Lexington, Ill. Rilco Laminated wood beams are 36' long, spaced 6½' O.C. Rilco V columns are 10' 4" high.

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2517 First National Bank Building, St. Paul 1, Minnesota

reminiscent architecture

Mexico's Modern Architecture. *I. E. Myers. Architectural Book Publishing Co., Inc., 112 W. 46 St., New York 36, N. Y., 1952. 264 pp., illus., $12*

There is no doubt that Myers is more than intrigued, not only by Mexico and the Mexicans as a land and a people that are unique in history and background, but also because he feels that small though the country might be, it is making great strides in a native modern architecture. In an introduction to the book, Richard J. Neutra agrees with the author, and states: "Mexico no longer follows. In the modernization of public buildings, from hospitals to schools, Mexico has been in the lead."

I don't know whether the reviewer of a book can assume the prerogatives of a critic but, after the rather exciting and anticipatory text, the photographs reveal an architecture which is more than reminiscent of work being done in the United States and in South America. Although the author tells us that the Mexican architect has found inspiration in Mies van der Rohe, Le Corbusier, Neutra, and Niemeyer, he would have us feel as he does, that the modern architecture of Mexico today, as depicted in the book, is truly a national modern expression.

To prepare the reader properly for an appreciation of the work illustrated in this volume, the author has written a concise and informative history and geographical study of Mexico. There is a brief but illuminating dissertation on the cultural heritage of a people whose civilization dates from 1000 B.C. after a brief account of the conquest by the Spaniards and the ultimate change in Mexican society and the arts, the author goes on to describe the people, the land, and the economy of modern Mexico.

The book is divided into several sections, devoted to houses, apartments and multiple dwellings, office buildings, shops, commercial structures, industrial buildings, recreational buildings, churches, hospitals, and schools. The plans and photographs give a very clear picture of each structure, though one could wish for

(Continued on page 142)

A Guide to Selecting the Right Floor

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You are likely familiar with the modern beauty and lifetime durability of Bruce Block Hardwood Floors. There are now four distinct types, each developed for a specific purpose. In addition to those described here, Bruce also makes a heavy-duty industrial block for installation over concrete. Write us for literature on Bruce Block Floors or for advice on unusual floor problems.

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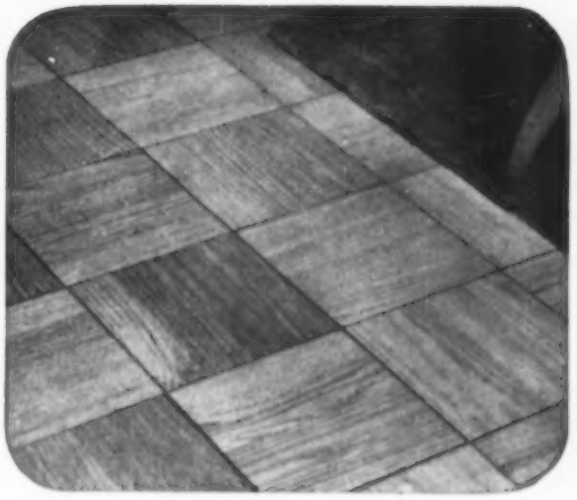

SOLID OAK—Over 100 million feet of this original Bruce Unit-Wood Block have been used in homes, apartments and other areas. It can be nailed over wood subfloor or old wood floors, or laid in mastic over concrete slab. Blocks 1/2" or 25/32" thick) have individual slats with interlocking tongues and grooves. Prefinished or unfinished.

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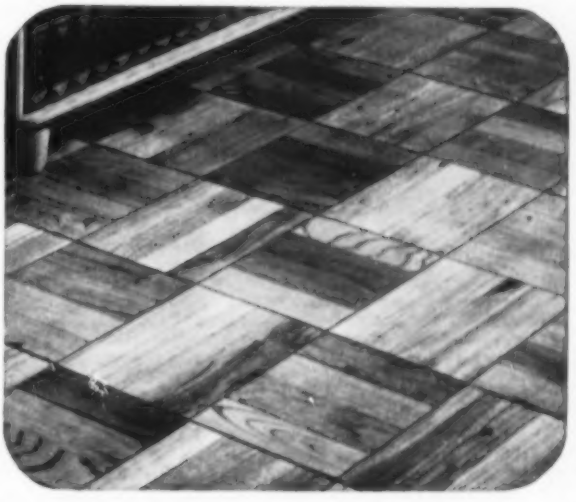

BLENDWOOD—This is a new, economy priced Bruce Unit-Wood Block of selected mixed hardwoods. Installed in mastic over concrete, it produces a modern floor of unusual grain and coloring. Bruce Blendwood Blocks are one of the most durable of all floorings, being made of heavy hardwoods, 25/32" thick. Prefinished.

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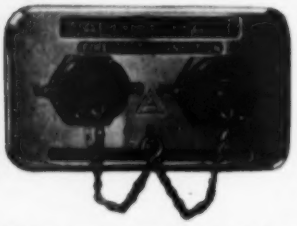

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reviews

(Continued from page 140)

more details. Interesting as the work illustrated in this book is, this reviewer was struck by the fact that the work in the section devoted to dwellings and houses might well be illustrations of work in California and the Western part of the United States. The office buildings are certainly Latin American in flavor, but here again, there is a marked similarity between the work in Mexico and the work to be found in South American cities.

There is much in this book that is worth study and attention, for an architect interested in contemporary work. Especially noteworthy is the use of native materials in both interiors and on the exteriors. There are only a few photographs of the nearly completed university city. It is hoped that in a second edition the author will include more photographs of what promises to be what he seems to find in other Mexican work, namely, a truly indigenous modern Mexican architecture. MORRIS LAPIDUS

thorough appreciation

Frank Lloyd Wright, Sixty Years of Living Architecture. *Distributed by Museum Books, Inc., 48 E. 43 St., New York 17, N. Y., 1952. 100 pp., illus. $4.50*

Enormous vitality and the wealth of design ideas that have been the roots of Frank Lloyd Wright's international fame for more than half a century are reflected in this handsome review of his characteristic work—projects, models, and completed buildings. Prepared with thorough appreciation of Wright's architectural contributions, this record of his practice over six decades comprises an astonishing display for the thoughtful reader and a useful reference book for the Wright devotee. C. M.

school planning, design

American School and University, Volume 24, 1952-53. *American School Publishing Corp., 470 Fourth Ave., New York, N. Y., 1952. 1007 pp., including 357 editorial pp., remainder advertising catalog. Illus., $5*

The new edition of this annual contains

(Continued on page 144)

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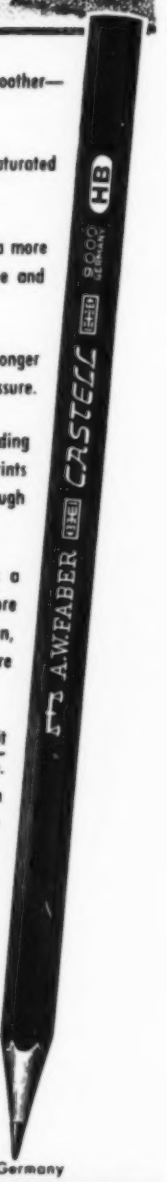

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PRODUCT NEWS from AMERICAN-Standard

A review of products in the news and important features worth remembering

AMERICAN-STANDARD KITCHEN CABINETS. The maker of the world's finest cast iron kitchen sinks now offers a *complete line* of all-steel kitchen cabinets . . . base, wall, utility and undersink cabinets. Convertibility feature permits changing shelf and drawer arrangements to meet individual storage needs. Finished in smooth, white, baked enamel.

REMOTAIRE ROOM CONDITIONER. This remote type unit for multi-room installations heats in winter, cools in summer, filters and circulates the air all year 'round! Individually controlled units use chilled or heated water supplied through a simple piping system from a central water chiller and heating plant . . . no unwieldy ductwork needed.

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SANISTAND FIXTURE. This wall-hung Sanistand urinal for women simplifies rest room cleaning, affords greater sanitation and convenience. Also available are a pedestal model of the Sanistand fixture and a tank model for installations where direct pressure valves cannot be used. All models come in white and a variety of colors.

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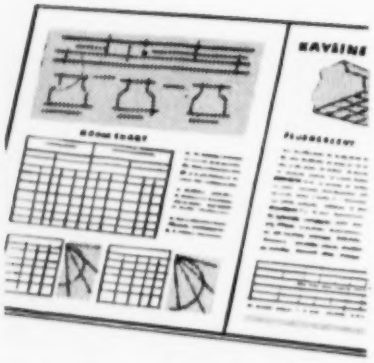

...here in the 74 pages in Kayline's Catalogue No. 53 are answers to all your lighting problems. Dimensional drawings, illustrations and installation suggestions are all included in what is truly a lighting fixtures handbook. Perfect for use in specifying fluorescent, incandescent and slimline fixtures. Kayline lighting fixtures are sturdily built for lasting service...easy to install, too. You'll be glad you sent for your copy of Kayline's Catalogue No. 53 today!

See Sweet's Architectural File — Section 31A-12.

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reviews

(Continued from page 142)

articles on subjects ranging from an Englishman's impressions of U.S. school building to discussions of heating methods and maintenance practices. Intended primarily for the schoolman, the editorial selection under the direction of Dr. Walter Cocking (who contributes several articles of his own to the book) is of value to the architect as a survey of trends in school design during the year. Very few architects have written material for the book this year, but illustrated work includes designs by such well-known specialists as John Lyon Reid; Perkins & Will; William Caudill; Ketchum, Gina & Sharp; Senseman; Warcecke; Wynkoop; Tarbell; Reisner & Urbahn; and many others. Advertising pages constitute a rather complete cataloging of suppliers of materials, equipment, and products for schools. T. H. C.

slums of the East

Low-Rent Asian Housing. *J. W. Dark. The Orient Publishing Company, Inc., Printing House, Duddell Street, Hong Kong, China. 1952, 122 pp., illus., HK $10*

The acute housing shortage problem in Asia is surveyed in its historical, sociological, financial, and practical aspects by the author who has an extensive knowledge of slums in the East. The Confucian Classical System of Ancestral Land and modern trends in low rent housing are discussed with special attention given to Chinese customs and usages. Regional planning based on a modernized version of the Confucian Classical System is advocated by the author as the most practical method for solving the problem.

B. L.

acoustical materials

Symposium on Acoustical Materials. *American Society for Testing Materials, 1916 Race St., Philadelphia, Pa., 1952. 35 pp. $1*

To meet the need for a better understanding of acoustical materials, the A.S.T.M. recently organized their Committee C-20 on Acoustical Materials, to formulate suitable test methods and procedures which, until now, have been rarely agreed upon or accepted universally. The results of their research on the development of test methods, specifications, and definitions of terms have been published in this symposium in the form of papers, discussing the origin and history of the acoustical materials industry, the problems of sound absorption, maintenance, application, and the relationship of the basic physical properties of these materials. E. T.

useful reference

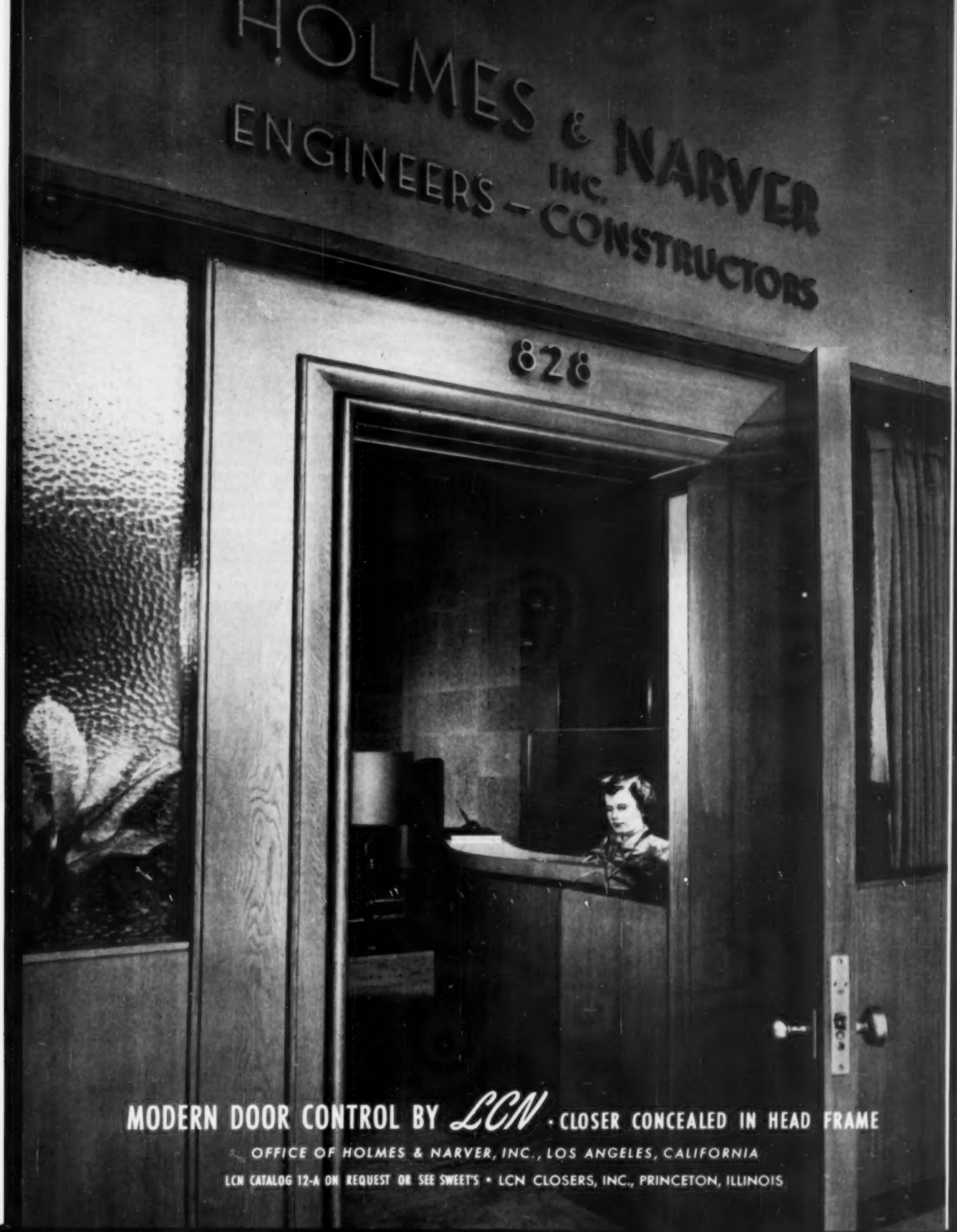
Furniture Forum. *Quarterly publication. Philip L. Pritchard. Depot Square Bldg., Englewood, New Jersey. Single issue: $1.50*

A handbook of contemporary design in furniture, lighting, fabrics, accessories, floor coverings plus special features such as exhibits and awards. The designs are selected with the aid of an impressive Design Selection Board and Advisory Board. Photographs of selected designs are accompanied by the designer's name, style number, description of materials and finishes, retail price, and manufacturer's name and address. This is truly a handbook with meaning because the information is so complete and the material has been discerningly selected. P. D. B.

hospital management

This Hospital Business of Ours. *Raymond P. Sloan. G. P. Putnam's Sons, 210 Madison Ave., New York 16, N.Y., 1952. 331 pp., $4.50*

Raymond Sloan, editorial director of the magazine *Modern Hospital*, has long been interested in the problem of the hospital trustee—the problem, that is, of educating the trustee sufficiently in the intricacies of hospital management and administration so that he administers his "trust" intelligently. This book does the job admirably, and is of interest to hospital designers because it considers in several of its chapters the role of the architect and the sometimes touchy subject of the relationship of the architect and the hospital consultant. Mr. Sloan's principal point—and it is an important one—is that the architect should be chosen early, so that he can become familiar "not only with the hospital background but with the personalities involved" and thus better translate the program into a structure. T.H.C.



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Here's how: (a) While vents are swinging in toward the frame, the vertical operating bars at each side of window move up. (b) Note how lugs on operating bars engage hooks on vents as the bar moves up... applying the wedging action that pulls the vents in tightly against the frame. (c) The vents are pulled in snug, and pressure against vinyl weather-stripping assures a complete seal (like the door of your refrigerator). Automatic locking has commenced. (d) Final "locked" stage of AUTO-LOK operation...hooks have moved in, adding extra locking action near the bottom of the vents, on both sides... without any strain on hinges.

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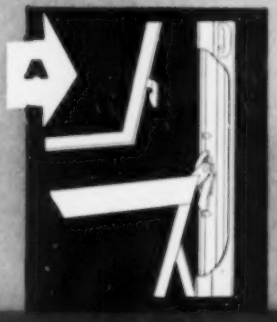

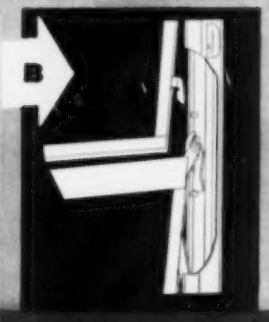

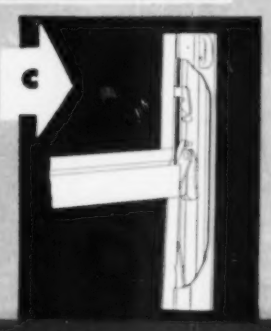

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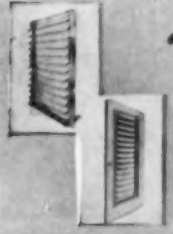
1. Automatic Locking	✓			
2. Electronic Vent Weatherstripping	✓			
3. Center Safety Lock	✓	✓	✓	
4. Position-Finish Operation	✓			
5. Glass outside from inside . . . top vent also removable without any part of window	✓		✓	✓
6. Delayed Action Opening	✓			
7. Concealed Hardware	✓	✓	✓	
8. Interchangeable Triple Screens and Storm Sash	✓		✓	✓
9. Flip Clips for screens and storm sash removal	✓			
10. Weather protection when window is open (ventilates even when it is raining)	✓			✓
11. 100% Ventilation (90° opening)	✓		✓	
12. AIR INFILTRATION*	**0.095****	**0.5*****	**1.0*****	**0.75*****
13. Dust Proof Ventilation	✓			✓

* Cubic Feet Per Minute per lineal foot of crack perimeter.
** According to Pittsburgh Testing Laboratories.
*** Generally established standards.



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Edgewater Towers, Lakewood, Ohio, a 205-suite luxury apartment chose Rusco over all other windows. The modern, streamlined construction of Rusco Prime Windows permits maximum visibility. Galvanized steel construction with baked enamel finish minimizes maintenance.

VARIETY OF TYPES AND SIZES ALLOWS GREAT VERSATILITY

Rusco picture window and flanker arrangement permits controlled ventilation with large fixed window area. Flanker arrangement may also be used effectively with doors.

Installation showing how combination of 3-panel high Rusco Prime Windows gives full "window wall" arrangement. Because units come all ready to install, labor is minimized.

On many small homes, such as this one in Houston, Texas, Rusco Prime Windows are used in single, double and triple arrangement to suit various room or design requirements.

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This unique, ready-to-install window makes truly remarkable savings in installation time and costs. Can be fully installed on many types of construction *in as little as 5 minutes!* No field glazing, painting, fitting of hardware, or call backs for adjustments and refitting. Many builders report that the *installed cost* on Rusco is less than that of the *cheapest* windows they can buy!

A FULLY PRE-ASSEMBLED WINDOW UNIT

Factory-Painted, Hardware Attached—

All Ready to Install in Window Opening!

GLASS • SCREEN

BUILT-IN WEATHERSTRIPPING

INSULATING SASH*

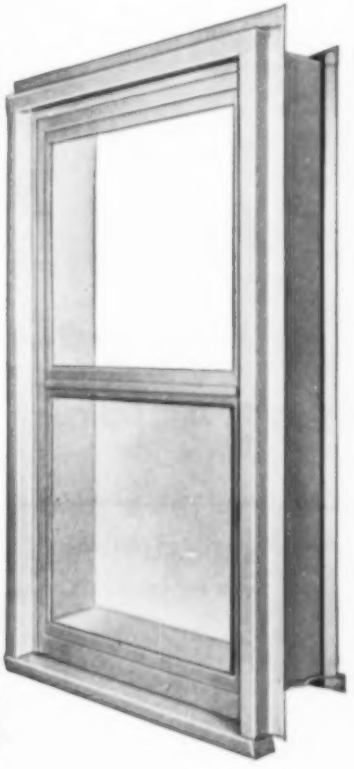
WOOD OR METAL CASING

...OR STEEL FINS

*OPTIONAL

Also available in 3-light and 4-light styles for commercial and industrial construction.

Glass and Screen Inserts easily removed from inside for convenience in cleaning. The Rusco removable sash feature has tremendous appeal as a convenience and safety feature.



1. Rusco Prime Window, with glass and screen panels removed, is taken from stockpile...

2....placed in stud opening and plumbed...

3....nailed to studs...

4....glass and screen panels slipped into slides

5....and in less than 5 minutes the fully-installed window is ready for service!

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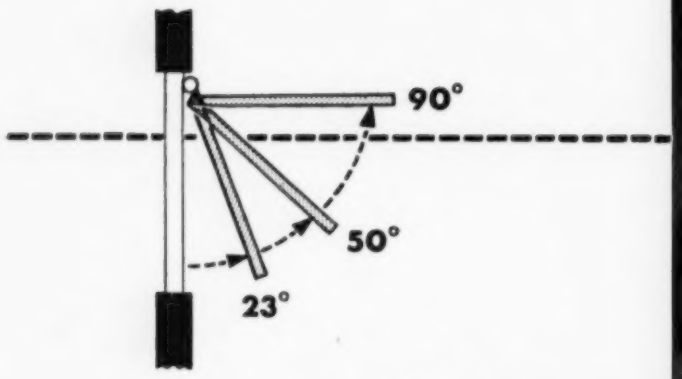

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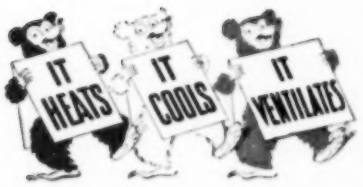

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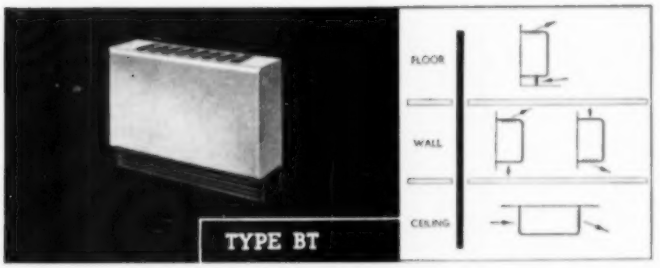

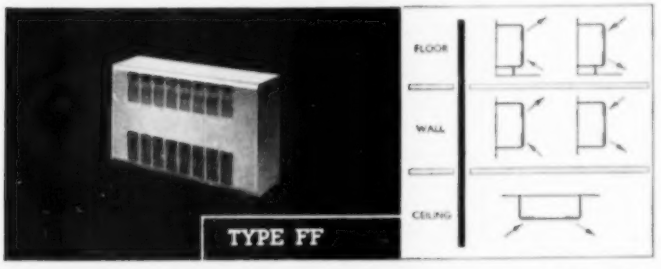

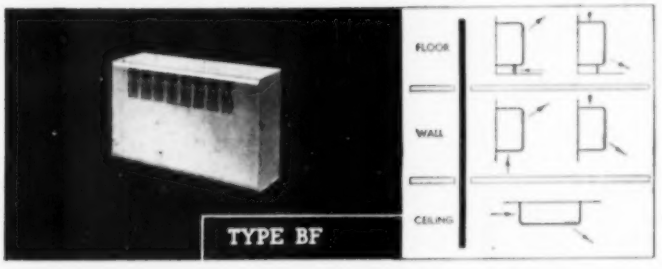

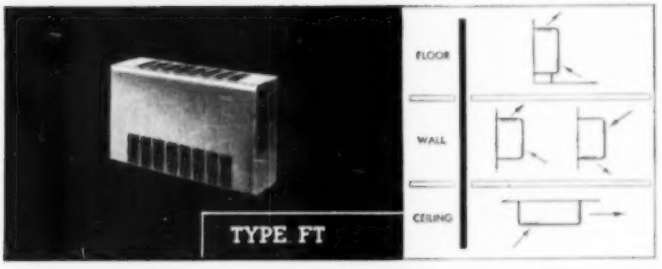

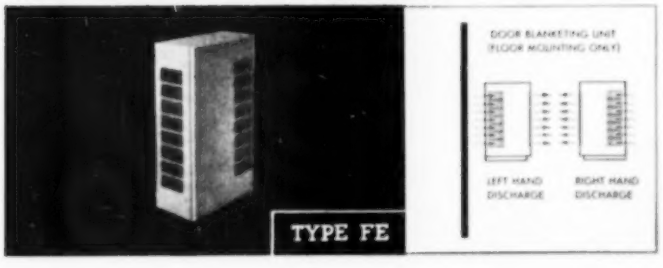

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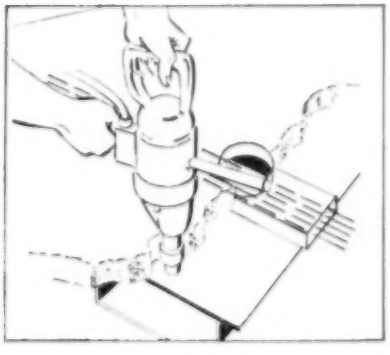

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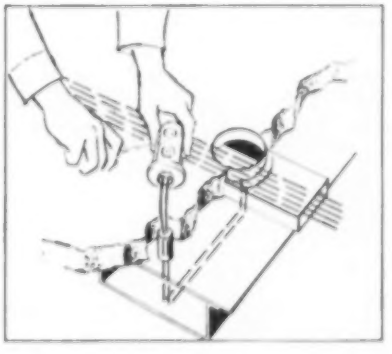

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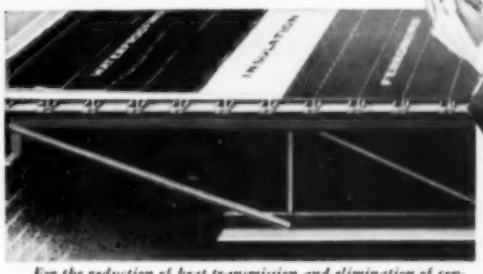

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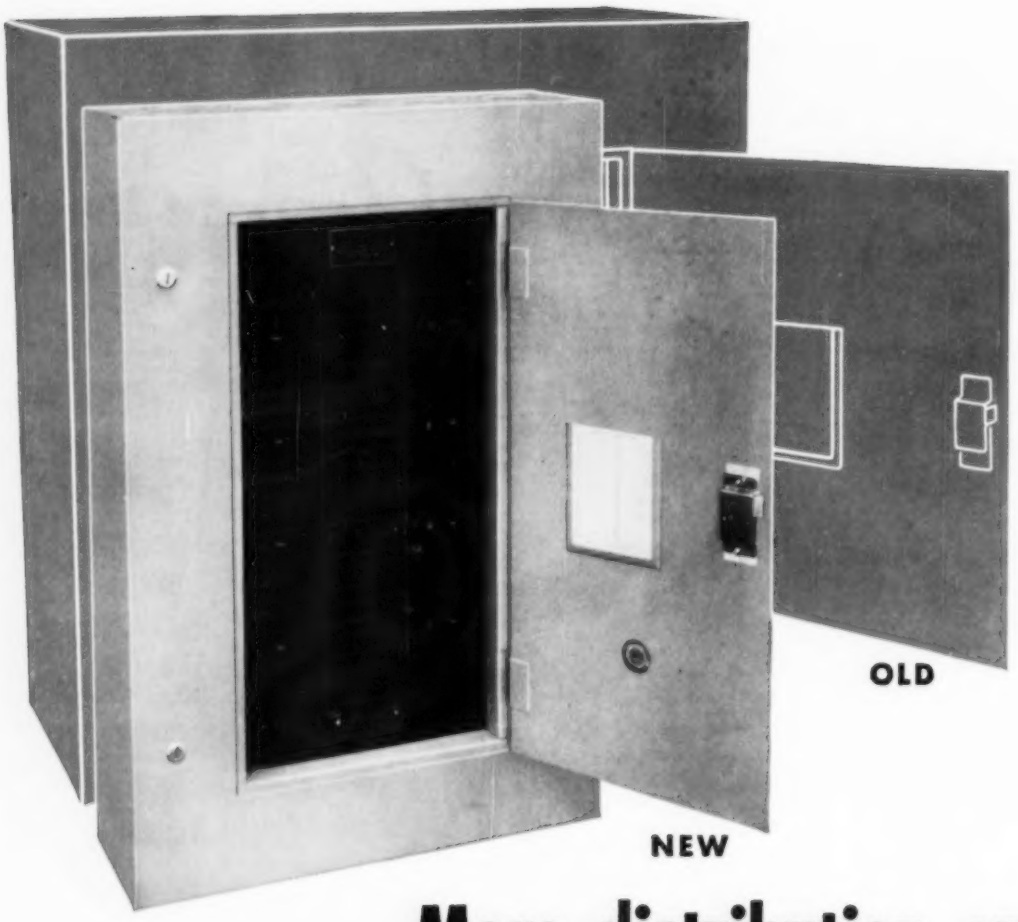

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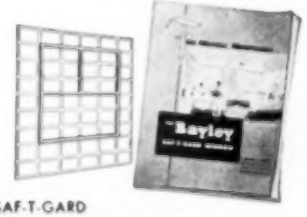

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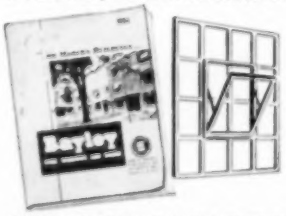

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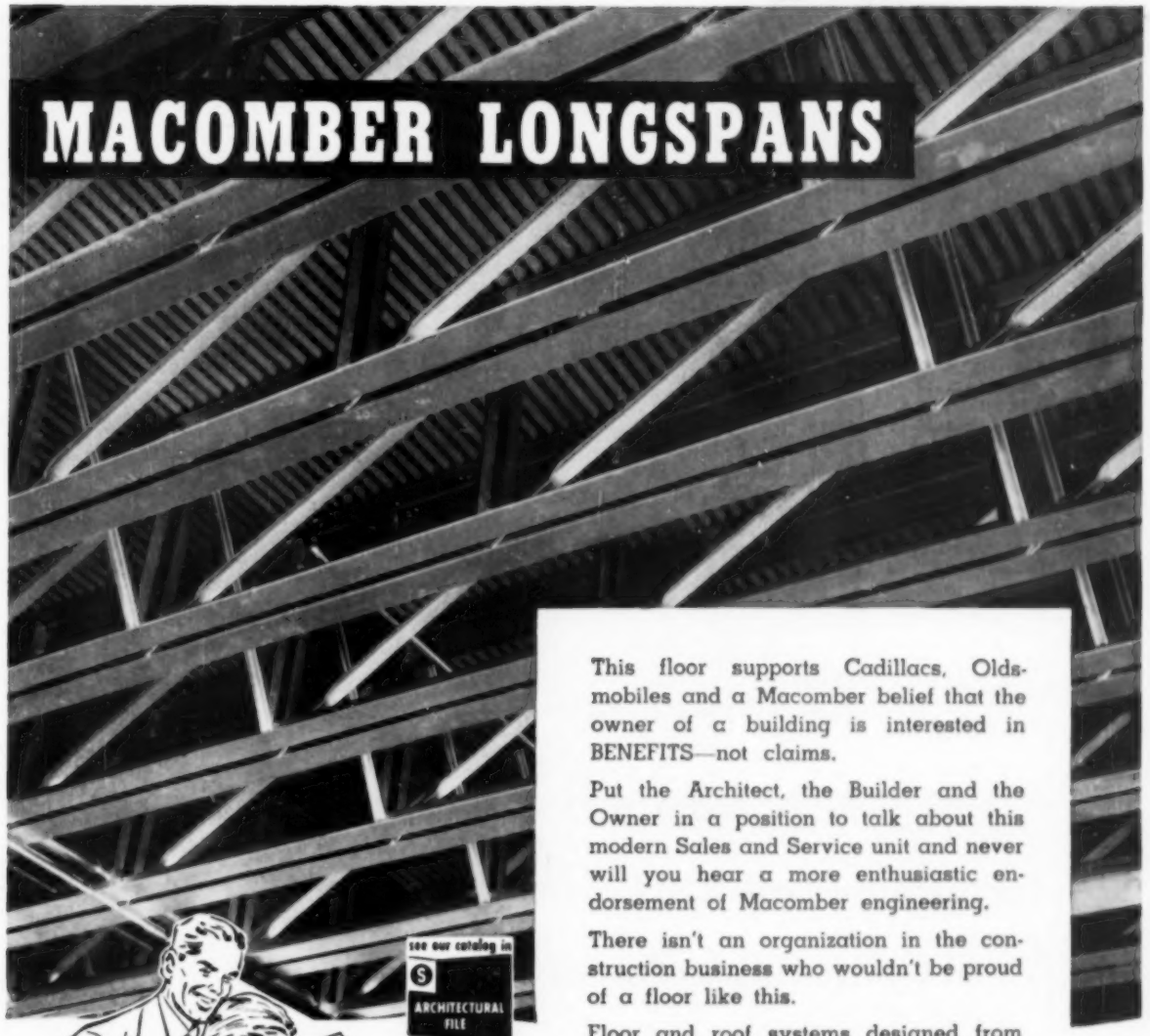

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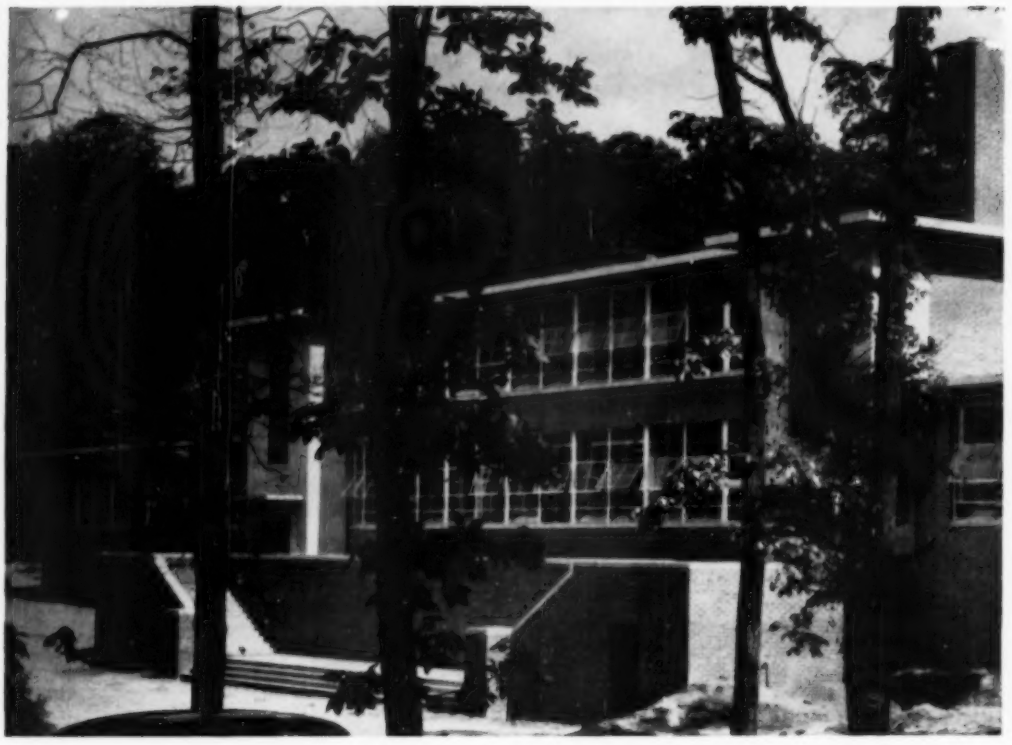


Architects and engineers, Warren, Knight and Davis, realized that large exposed glass areas, typical of school buildings, created a need for Honeywell Customized Temperature Control in the Charles B. Glenn Vocational High School. Other participating firms were: General Contractor, Richardson Construction Company; Mechanical Contractor, H. L. Eskew & Sons. All firms are located in Birmingham.

New high school demonstrates need for Honeywell Customized Temperature Control even in mild climate of the South

Birmingham's Charles B. Glenn

Vocational High School features individual room temperature control

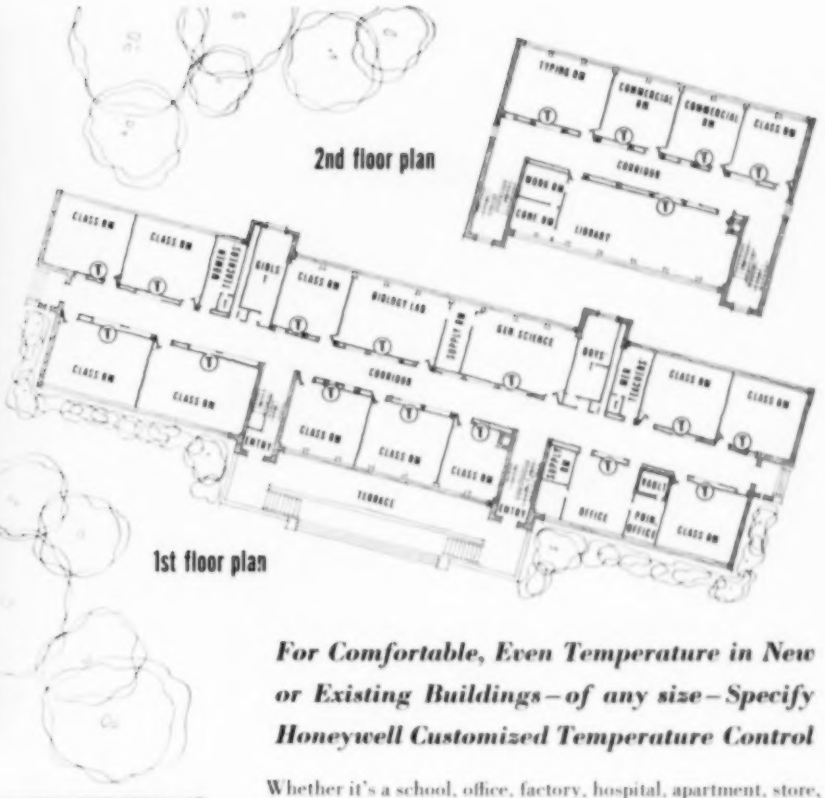
In developing the new school you see here, an enterprising architectural-engineering firm and an understanding school board are leading the way to greater comfort and more efficient learning for thousands of southern teen-agers.

And a Honeywell Customized Temperature Control installation is helping them provide these benefits for Birmingham students.

In the case of the Glenn School, the Honeywell installation is in the form of individual room temperature control—a thermostat in each classroom. The floor plan at right gives the location of the thermostats.

Today, in this school, teachers may keep temperatures right for most efficient learning—simply by adjusting a dial.

If the wind blows cold against the windows of their individual classroom they can easily adjust for the extra heat loss. And if during certain periods of the day the room is crowded, or the sun is hot, they can as easily *lower* the temperature.



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H. L. Eskew, heating contractor of Birmingham, says: "More and more in the South we're coming to realize the importance of proper temperature control and adequate heating methods. I think the Charles B. Glenn High School job is good evidence of that."

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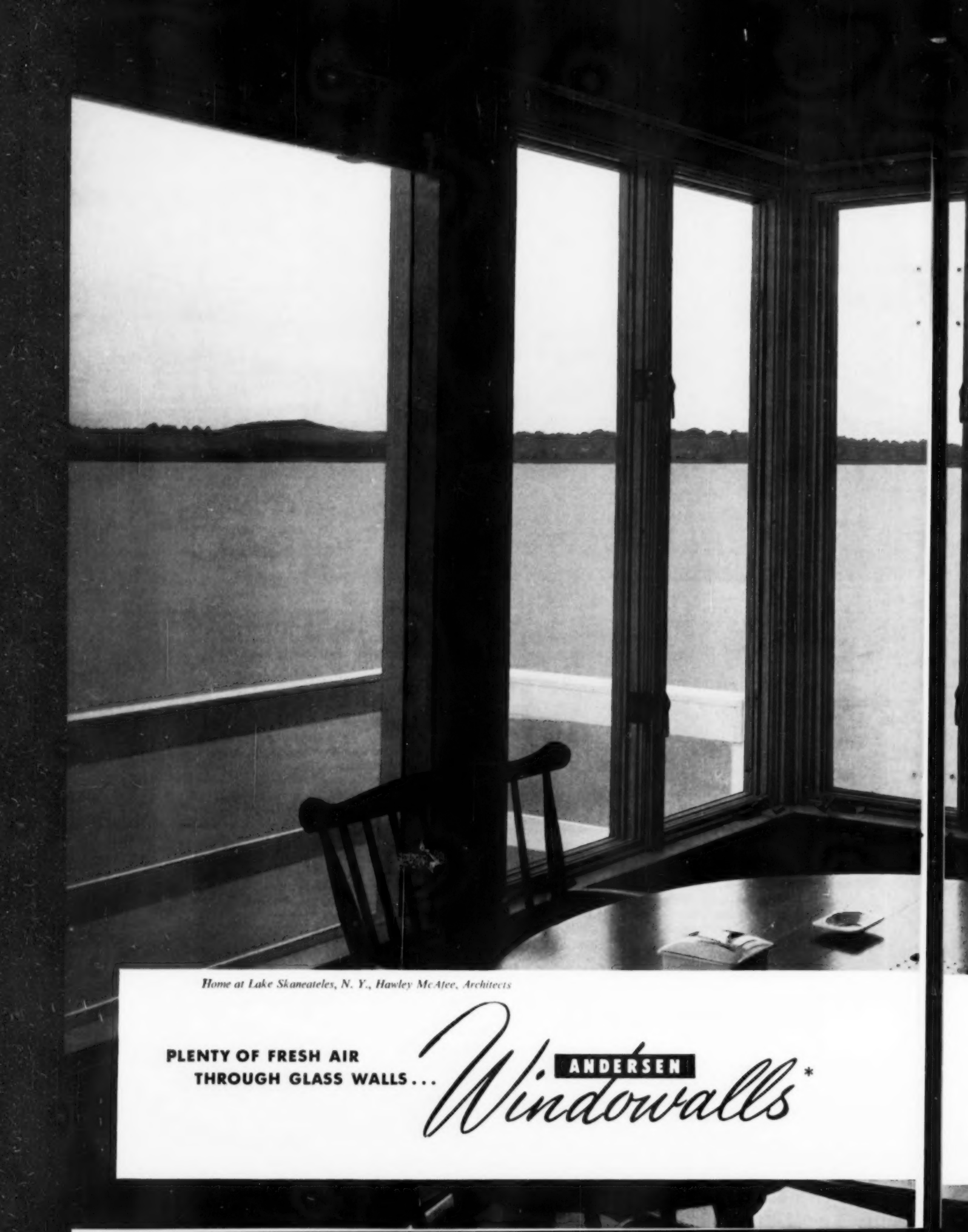

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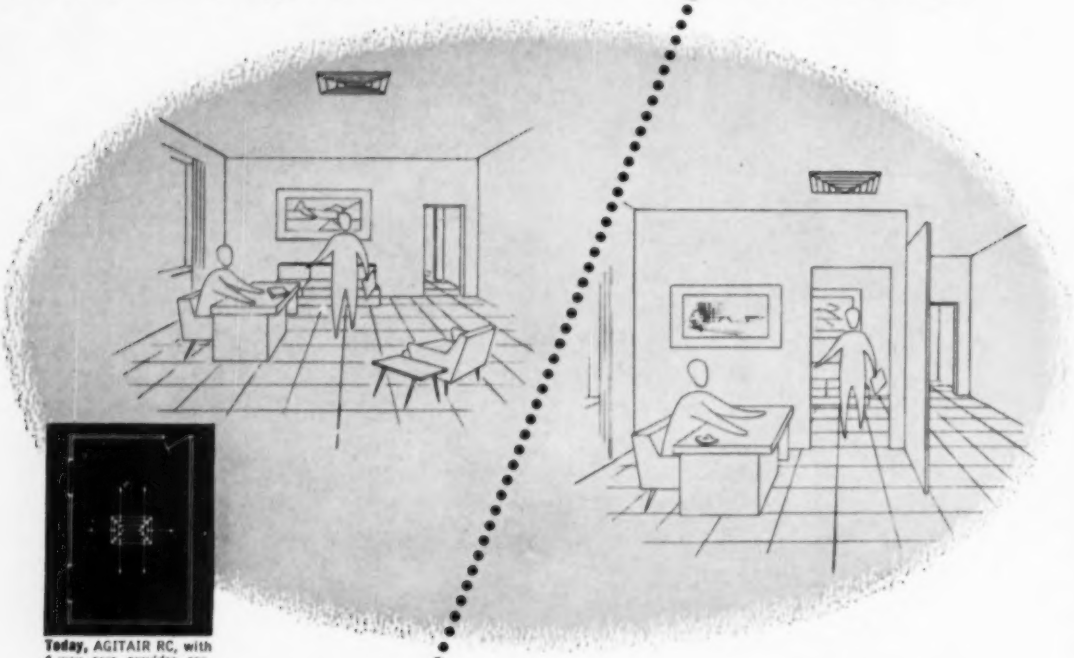

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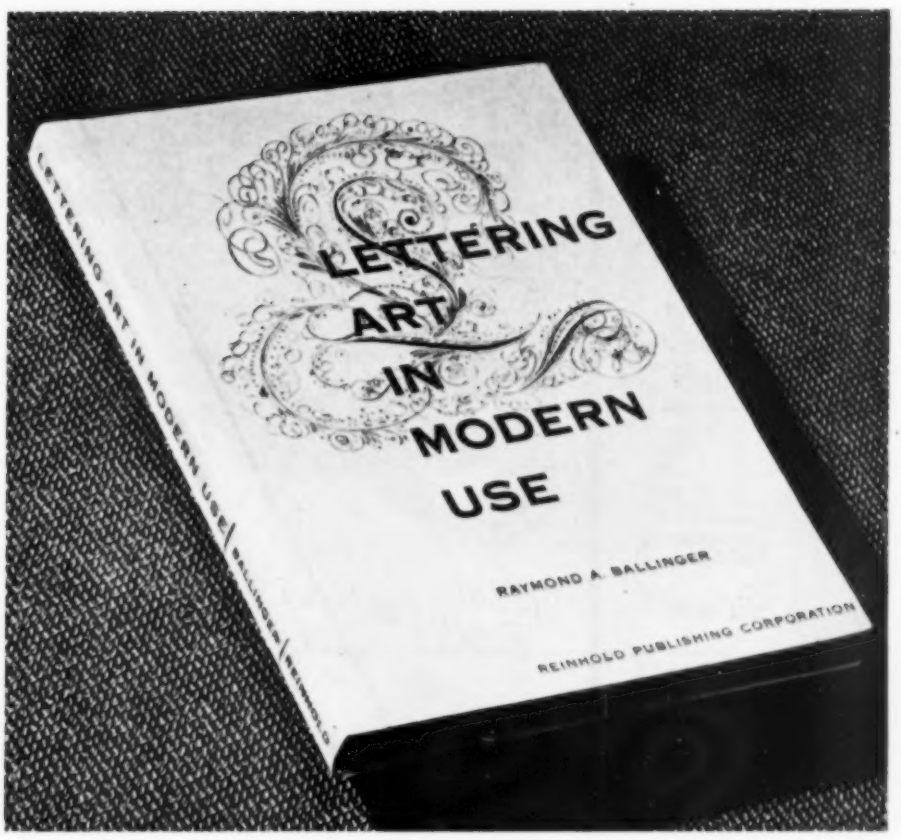

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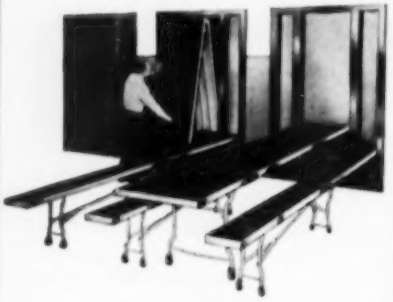

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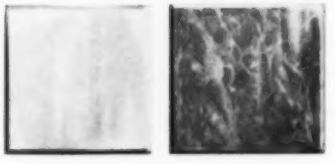

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The monkey immediately broke the cheese evenly and judicially put the two pieces on the pans of his balance. But one was slightly heavier. He shrewdly nibbled that piece a bit and put it back on the scales. Now it was the lighter piece. So he bit off some of the other piece only to find it the lighter. Thus while the two hungry cats watched, the monkey kept taking bites of the cheese, first one piece, then the other, until finally the cheese had almost disappeared.

"What's left is too small to divide," sagely pronounced the monkey, as he popped the remaining fragments into his mouth.

Observers of the American scene see a direct parallel between the record of federal taxation and this ancient parable of the trusting cats, the greedy monkey and the cheese. Business and the individual citizen have been content to trust government to rule on the disposition of their earnings. And Uncle Sam keeps taking bite after bite out of the shares of both individual citizen and business.

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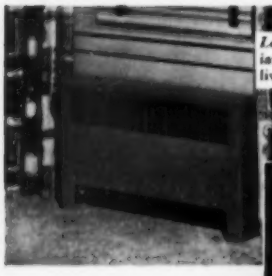
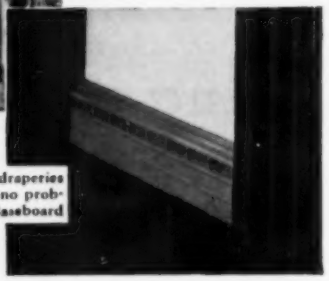


Left: Showing how Fedders Convector-Radiator conforms to modern decor of smart living room.



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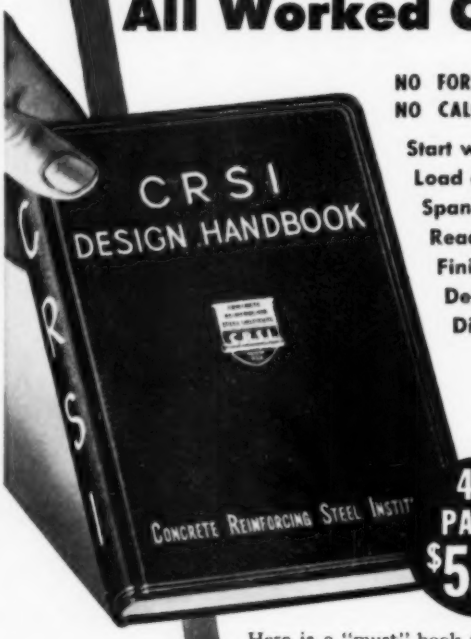

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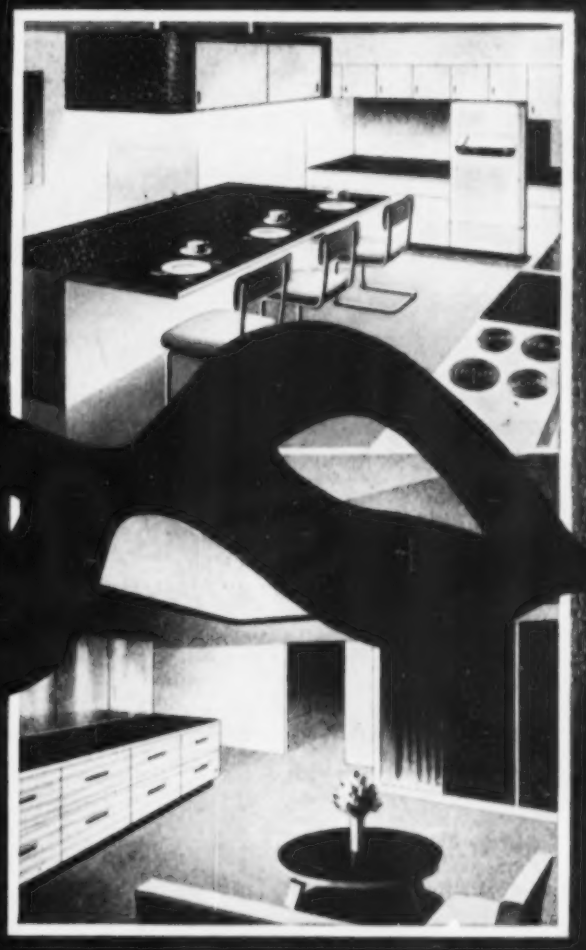

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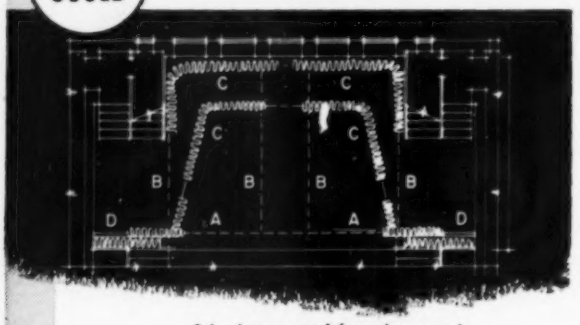

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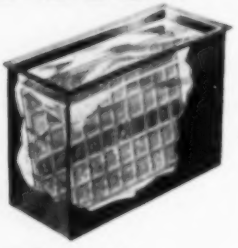

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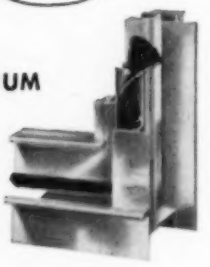

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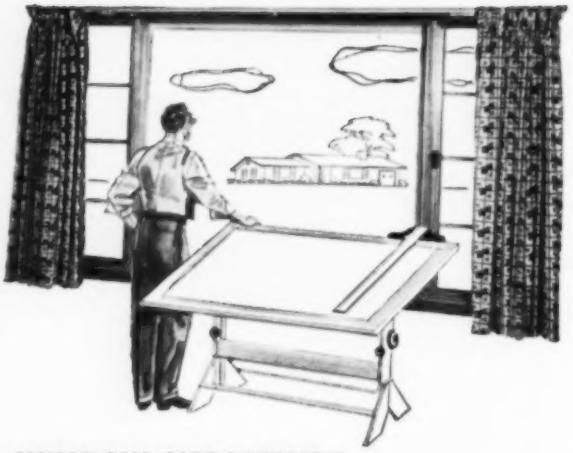

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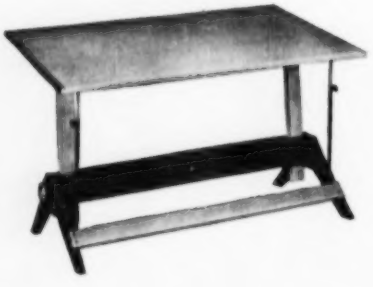

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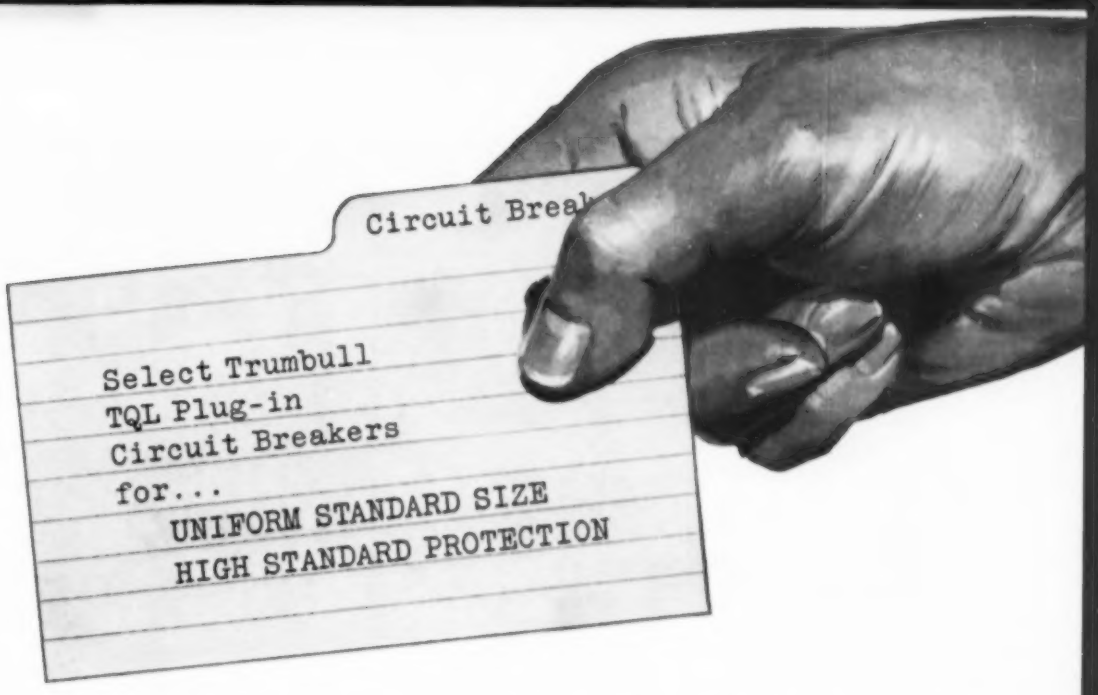

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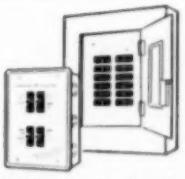

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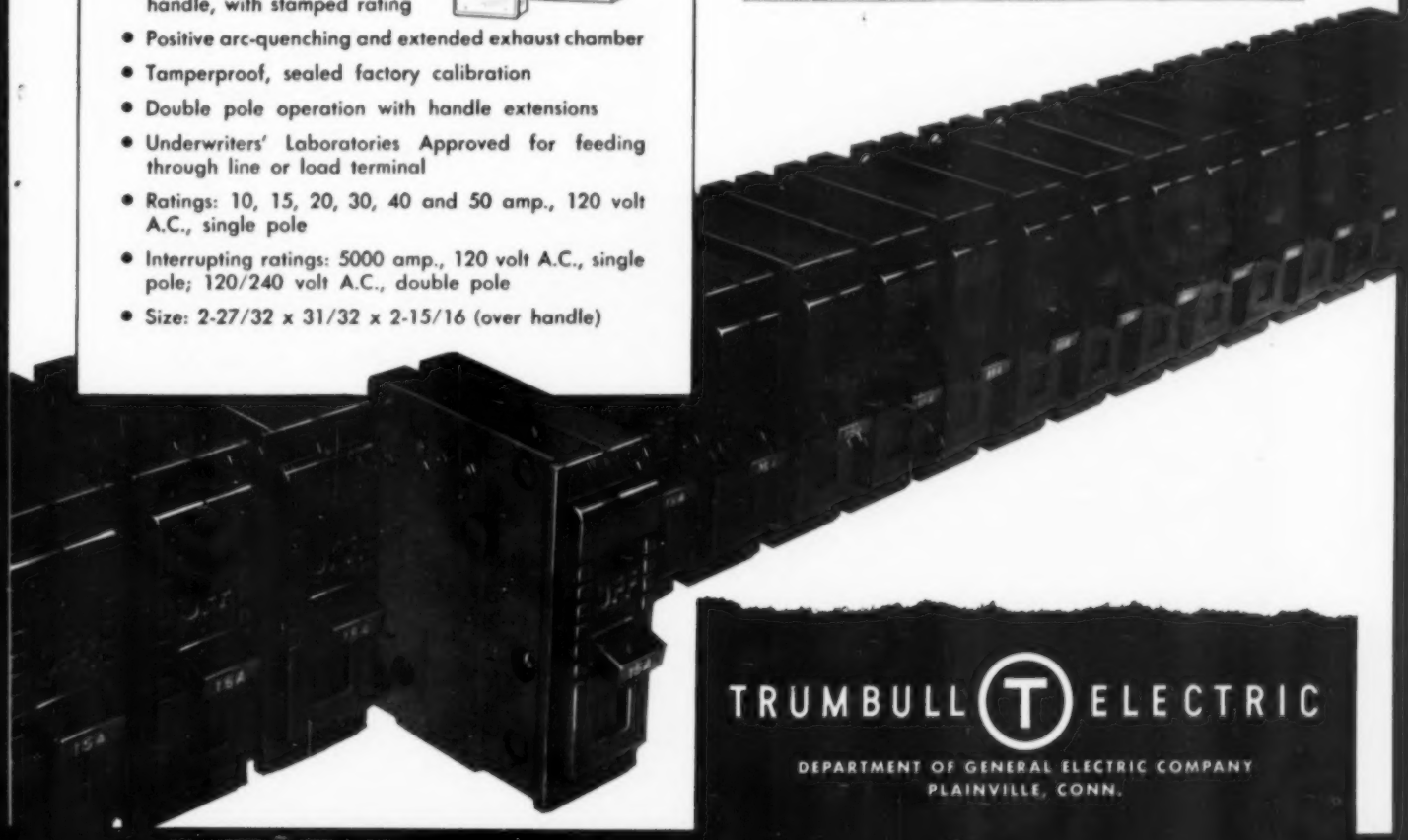

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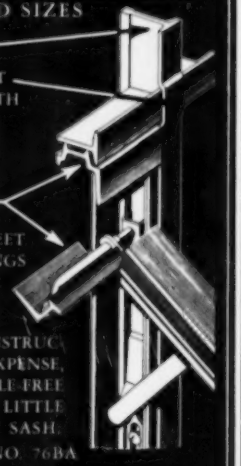

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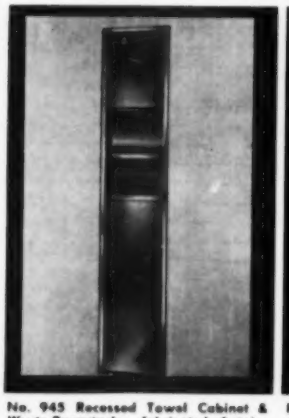

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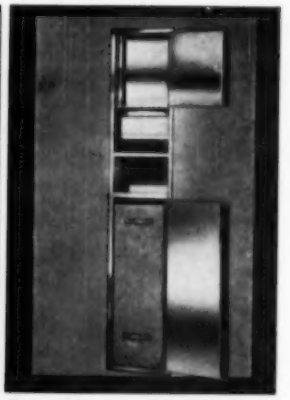

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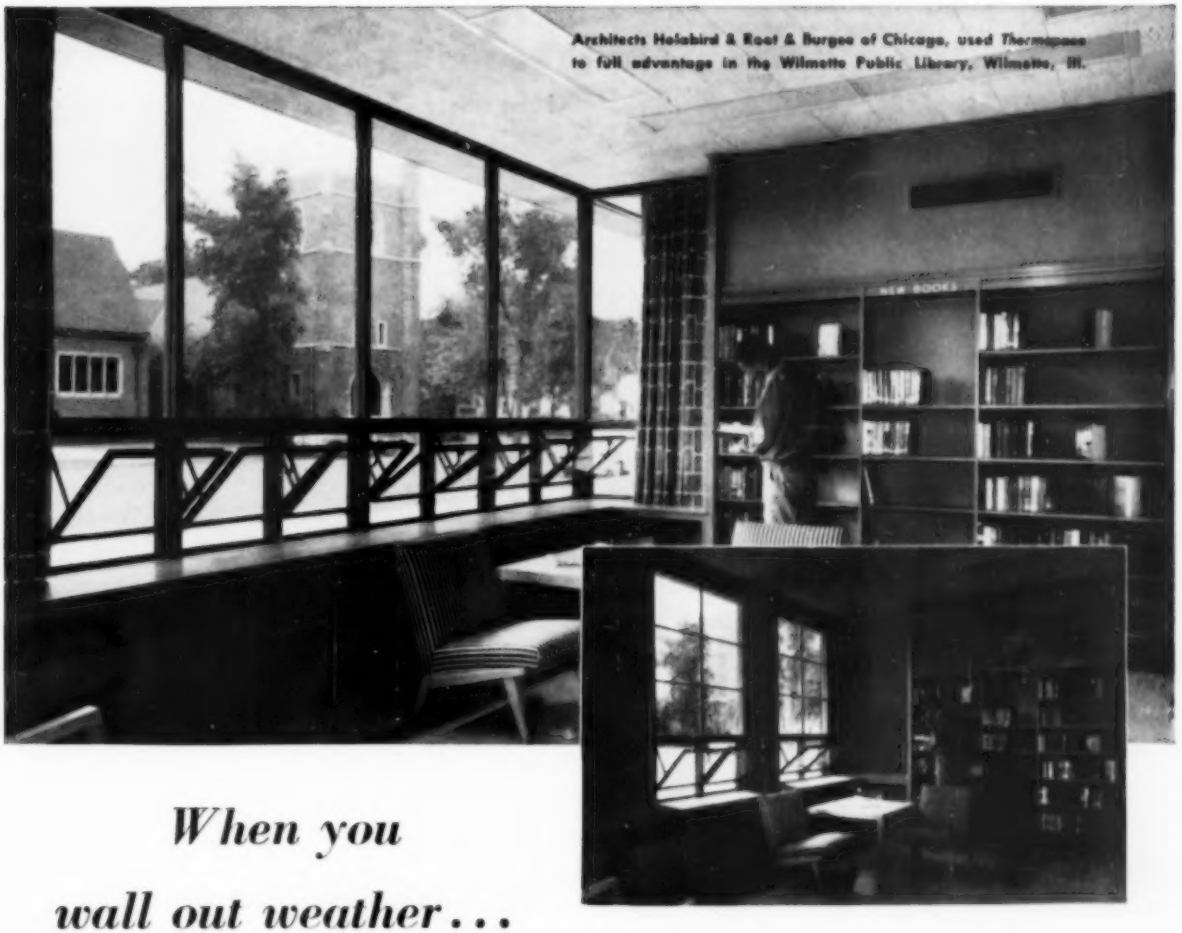

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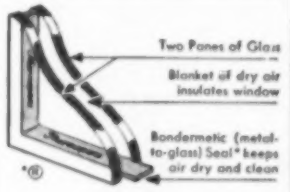

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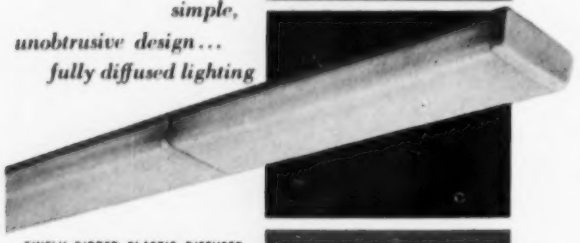

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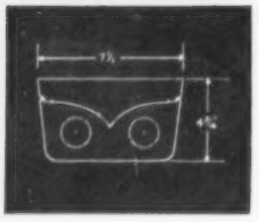

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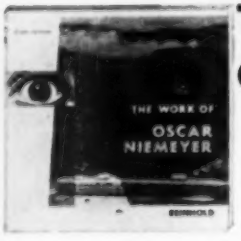

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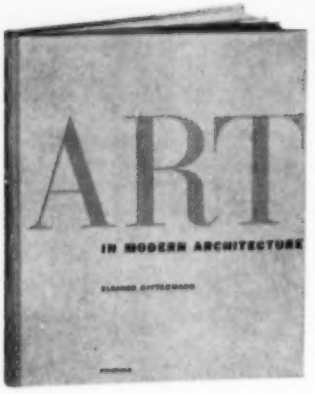

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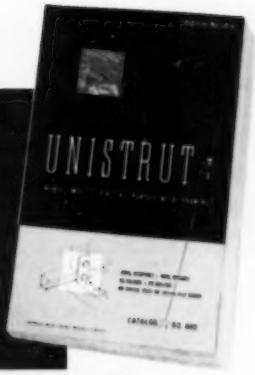

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P.S.

New Features Department. We were all delighted when Ben John Small agreed to do a monthly column on specification-writing problems. As you can see from the first one *(in this issue)*, Ben will treat specification desk activities with a light touch from a firm hand. Behind his anecdotes, there is a wealth of useful information and stimulating thought.

We have another surprise coming for you in a few months—a fifth personal column, to be added to Feiss, Tomson, Small, and Creighton, based on another aspect of Architecture. We believe, and a large body of our readers have told us they agree, that this personal-critical approach is much more readable, and in the end more useful to the busy practitioner than more formal essays would be.

Art Department. Ben Small's column is graced, as you must have noticed, with some very lively cartoon drawings. They are by George Doczi, an architect in Alfred Hopkins & Associates' office—a man with a background of experience in Hungary and Sweden, including work with Gunnar Asplund and Sven Lynd. Doczi is also a portrait painter, and author and illustrator of a children's book. More of his work will appear on Small's page for at least several months, but then I understand there is the possibility of his running a job out of the country. Unless Ben can write far enough ahead to send his column to the Middle East for illustration, I don't know what we'll do from then on.

●

Old Book Department. I have temporarily in my possession beautifully bound volumes of the following works by Viollet-le-Duc: *Dictionnaire raisonne de l'architecture francaise du XI au XVI siecle*, 10 vols., Paris, Morel, 1882; *Dictionnaire raisonne du mobilier francais*, 6 vols., Paris, Morel, 1872; *Histoire d'une forteresse*, texte et dessins, avec 8 gravures en coleur, Paris, Hetzel (no date indicated).

I have no idea what these books may be worth. As you must know, Viollet-le-Duc was an architectural critic and historian who wrote in the mid-19th Century and formulated certain hypotheses of constructivism (particularly in relation to Gothic work) that have had strong influence on contemporary design and still have much validity. The drawings in the books alone are a treasure. If any of P/A's readers are interested in negotiation with the owner, who wants to dispose of them, I shall be glad to put you in touch with one another.

Essays on Journalism Department. I have a letter from a P/A reader who complains about the lack of architectural criticism in the United States, and quotes someone to the effect that the only critical appraisal of architecture is the arbitrary selection each month of material to publish, by three architectural editors. That, he avers, is a pretty big responsibility and a bad situation. I won't tell you who wrote the letter, because he didn't tell me who said the quote. *Anon* is *anon*.

I must admit a certain justice in his remarks. They aren't completely accurate because suggestions, discoveries, discussion, and selection comes from a rather large over-all group of editors, assistant editors, and associates on the three national magazines. We don't have, in the United States and in our field, the purely personal journal that is bought each month just to see what the one editor has to say. Nevertheless, we Editors do feel the responsibility of what becomes, at a certain point, a fairly arbitrary choice of material. To cure this situation as much as possible, P/A from time to time calls on a broadened outside board of Editorial Advisors to help our judgment. In this issue, for instance, you will have noticed that we had an advisory "jury" of three, as we did last January in our preview roundup. For some years the P/A Annual Awards Judgment (given up when the A.I.A. began its national Awards Program) provided much material for subsequent issues, selected not by the Editors but by a jury with broad background.

And I might point out that the various Awards programs—national and local—usually turn up, as the winners, buildings that have already been published or selected for publication in one or another of the national architectural magazines. In other words, that "arbitrary" judgment on the part of editors is almost invariably substantiated by these jury selections.

What worries me principally about this *criticism by selection* is the temptation to concentrate on the work of a comparatively few men. P/A has struggled to rise above that tendency, and we are very proud of the new names we have discovered and given a boost to. I've made a quick check through last year's issues, and I find that last January we published projects from 58 firms, and in the following eleven months published work by about 135 architects. That totals 193 designers represented in our pages during 12 issues. It may not seem like many, out of some 15,000 registered architects, but we certainly haven't stayed only witth the "big" names. By making January a "roundup." by developing presentation methods such as the Round Robin Critique, and by searching out good details in the INTERIOR DESIGN DATA and SELECTED DETAILS pages, we have been able to offer the limited number of pages one magazine has available, to a fairly large number of firms—including many that I'll bet you'd never heard of before.

Obviously, it still remains largely an arbitrary selection. I don't think any editor in his right mind is going to publish work that *he* feels is not the best architecture obtainable, to present for the benefit of his readers. And here is where the two problems—the selection of good design, and the desire to search out for more good designers—come together in a single problem. I wish that a large number of our readers could travel with me through the streets of a typical city. We would have to remember, all of us, that we were looking for architecture to publish which was esthetically satisfying final design, that was successful in all of its details as well as the integrated whole, that used materials and construction methods well, that was sufficiently above other work in the community so that architects would stop and look (both on the street and in the magazine); that offered enough constructive planning information so that other architects would learn and gain in knowledge from its having been published.

I'll tell you right now that we wouldn't find many such buildings on our tour. Make the test in your own community. You'll find many structures that will make you say, "That's pretty nice design," but when you put yourself in the position of an editor whose responsibility it is to publish only the best, most informative, and most valuable design for a large audience of architectural and engineering men from junior draftsmen to principal partners, you'll have to admit in most cases that the "pretty nice" job doesn't stand up against the top things being done in the country as a whole. And, in addition, you'll probably end in your own community with a list of work done by the small echelon of well-known people that we wanted to broaden out from. To find the other work (designs by new young men coming up in the profession, and designs by firms that had not heretofore produced outstanding work but have suddenly blossomed out with a truly first-rate job) requires a lot of digging and scouting. That's where the editorial function comes in, and that is more than an arbitrary selection from among obvious things, Mr. *Anon*.

All the above breast-beating comes from the fact that I have just rejected several buildings by an awfully nice guy whom I very much like—and I feel very badly about it.

Thomas H. Creighton

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